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ORIGINAL ARTICLES.

THE SURGICAL TREATMENT OF CONTRACTURES.[1]

BY A. T. BRISTOW, M.D.,
OF BROOKLYN, N. Y.

THE contractures that occur in certain diseases of the nervous system, together with the resultant deformities, are by most physicians engaged in general practice considered to be irremediable. Many neurologists also deprecate surgical interference, certainly in the spastic cases. Gowers, for instance, speaks of tenotomy as being undesirable, and, mentioning the equinus that develops in spastic paraplegia, says in the most positive manner that division of the Achilles tendon is useless and ought never be done.

My experience with these contractures, though not large, it is true, impels me to say that more is to be expected from surgical interference in their treatment than from any other measures.

This whole subject has been briefly but most ably handled by Dr. DeF. Willard, of Philadelphia, in an article that appeared in THE MEDICAL NEWS, December 19, 1891, in which will be found the results of an experience far exceeding my own. My apology for presenting this subject for consideration lies in the fact that few voices have been raised in opposition to the generally expressed opinions of neurologists, and, as I believe that they take too pessimistic a view of the subject, I desire to record my own brief experience as to the desirability and successful results of surgical interference in the treatment of these intractable deformities.

To classify the cases broadly, they may be of cerebral, spinal, or peripheral origin. The first class is certainly in children the largest, and while usually following a birth-palsy is also often secondary to lesions developed later in child-life. Every physician in active practice has met with such children, who with distorted limbs drag out a miserable existence. Most county institutions contain numbers of them, and in many a home they are kept secluded with tender but hopeless care. Many of the children are imbecile, but a very large number possess a great deal of intelligence and the keenest sensibility, and are profoundly conscious of their own helpless condition. Little is, however, done for them.

The family physician may, indeed, at the mother's request, make a few sporadic applications of electricity, advise massage, or finally send the child to an instrument-maker who fits him with braces which he cannot wear; but gradually the case is abandoned as utterly hopeless. To the suggestion of the surgeon that the tendons of the contractured muscles be divided, or in the case of the adductors of the thigh the muscles themselves, the neurologist objects, saying that as the spasm is of central origin it is illogical to expect anything from operative interference. The family physician likewise holds up his hands at the idea of a tenotomy, and so the surgeon does not often have an opportunity to put his methods to the test.

In addition to the class of cases just referred to there are also cases that result from a sclerosis either in the lateral or anterior columns. The contractures following anterior polio-myelitis, resulting, as they do, from unopposed muscular action, we need not here consider, for the propriety of tenotomy in these cases is hardly debatable. The lateral-column scleroses are those that produce active spasm and contracture, and for such cases, as in the cerebral forms, it is necessary to put in a plea for the surgeon. They form about forty per cent. of the total number of cases of infantile spinal paralysis of sclerotic origin (Willard, *loc. cit.*), and are, therefore, almost as numerous as the cases of infantile paralysis, so called.

There are a few cases remaining that may be placed in a group by themselves, that follow injury to a nerve-trunk itself—as, for instance, the ulnar. In these, as a result of the atrophy of the interossei, we have the *main en griffe*, with the first phalanges extended, the second and third flexed. The result of such a condition is an absolutely worthless hand.

Injury to the musculo-spiral nerve and consequent neuritis may give rise to spasm and contracture of the extensors, the result being, of course, an equally useless hand. I have seen two such cases lately, one of eight years' standing and one of quite recent origin. In both, I believe, a hand with the fingers in constant and complete flexion would have been of more value than the open palm. Similar cases are not numerous, however, and it is chiefly in the contractures of cerebral and spinal origin, with coincident spasm, that I wish to urge the propriety of

[1] A paper read before the Brooklyn Surgical Society, June 21, 1892.

operation—tenotomy or myotomy, or both, as the case may require. I believe in dividing all structures that offer resistance to free joint-motion. My reasons are as follows: First there is a pretty uniform agreement that medical treatment is useless, whether in the form of drugs or electricity. Says Gowers: "Large doses of bromide have but a trifling effect [on the spasm and contracture]. Neither Indian hemp, belladonna, nor piscidia erythrina has much effect. In the infantile form of spastic paraplegia drugs are useless [to control the spasm]. Electricity in all forms is useless." He is here speaking more particularly of the spasm rather than of the contracture, but what is true of the first condition is preëminently true of the second. Besides, spasm and contracture are coexistent, and later on, if the spasm has diminished, the contracture will usually have remained stationary, or perhaps have increased. Not to multiply quotations from different authors, it may be said that these are the views in general maintained. Nothing is to be hoped for, then, from medical treatment as far as we know at present.

With people of means it is not long before such cases are brought to the instrument-maker and an attempt is made to fight the contractures with steel bars and unyielding shoes. Everyone who has tried these knows the result of such illogical methods of treatment. The limbs of such patients are extraordinarily sensitive to pressure. They are the subjects of impaired nutrition, and resent violence and pressure by increased spasm, further aggravated by the ulcerations and irritable callosities that soon make their appearance and render the last condition of the patient worse than the first. I took from one of my patients, a child ten years old, some ten pounds of such apparatus for both legs, reaching from hip to foot. The so-called braces were expected to counteract the spasm of contractured hamstrings and gastrocnemii. The parents had paid $250 for these instruments of torture, which the child was finally obliged to discard, because of the extreme pain that followed any attempt to walk in them. What else could be expected? Flesh and blood are no match for iron and leather. Something had to give way, and it was not the apparatus or the deformities. I think I may safely say that it is futile to expect the relief of these contractures in spastic cases from the use of apparatus *while the spasm and contracture persist.* What then remains? The cases are usually abandoned as hopeless. Can nothing be done for them? Most of them are so entirely helpless that it seems justifiable to try any means which offers the slightest hope of improvement, and I believe that nothing but a complete division of all the structures that interfere with the full and complete motion of the joint will be of any avail in relieving the deformities.

In considering the advisability of an operation there are four questions for the surgeon to answer: 1. Is relief possible in other ways? 2. Does the operation endanger life? 3. If unsuccessful, will it render the condition of the patient worse than before? 4. How permanent is the relief which is expected as a result?

It is believed that the first question has been already answered. With regard to Schaefer's method of stretching contractured muscles, I am of the opinion that it is not applicable in spastic cases, nor do I know that he uses it in such cases. It is undoubtedly useful in those contractures resulting from unopposed muscular action, but not if there is contracture and spasm as well. The more these shortened muscles are stretched, the more the spasm; so that the effort to relieve one pathologic condition induces another.

In these days of antiseptic surgery it is hardly necessary to answer the second question other than in the negative. Tenotomy or myotomy is certainly subject to as little risk to life as any surgical procedure. Nor will the operation leave the patient in worse condition than before. Even if it does not reduce the deformity, it can only leave the patient where it found him. It is true that certain accidents—such as erysipelas, teno-synovitis, or deep phlegmon—may occur as the result of any operative procedure. Perhaps, however, it is better not to call them accidents, because they are clearly the result of faulty antisepsis, and are preventable. When they do occur, especially after operations on the flexors of the hand, the patient is certain to lose what little function the original disease has spared. Such an event, however, is chargeable, not to the operation, but rather to the operator. I have opened the sheaths of the flexor tendons of the carpus a number of times in the preceding winter, split the lifted tendons, sutured them with black silk, and returned them to their sheaths, and I have yet to meet with a case in which the wounds did not heal by primary union. With care and rigid antisepsis the worst that can happen in these cases is failure to relieve the deformity.

Lastly, are we to expect permanent relief in those cases which at the time appear to be benefited by the operation?

The few cases in which I have done these tenotomies and myotomies have not relapsed. The relief, so far, seems to be permanent. The contractures have not returned. It is true that this is something that many neurologists refuse to believe a possibility. They say that as the spasm is of central origin it is, therefore, illogical to attempt to relieve it by section of the affected muscle. Nevertheless, the fact remains that muscles that before division were the seat of intense and disabling

spasm have, after tenotomy, remained free from both spasm and contracture.

It is not claimed that tenotomy or any other operation can cure the original disease or restore the histologic elements of the brain or the spinal cord that have been strangled by sclerotic processes, but the deformities that result therefrom can be relieved and the patient's life be made much less burdensome. These contractures are doubtless primarily due to central lesions, yet may it not be possible that their permanence depends on the altered nutrition of the muscles themselves.

The nervous system of the young, though singularly sensitive beyond that of the adult, is possessed of far greater reparative power. Illustrative instances are not uncommon. Muscles that have long since ceased to respond to volition have, under the influence of strong emotion, suddenly answered when called upon—too often, unfortunately, to furnish an advertisement for a faith-cure or a sacred relic. There are cases, however, in which the science of to-day, little credulous, would say that a certain amount of unconscious repair had taken place in the nervous system, that conduction had returned to the nerve-fibers, receptivity to the brain, and contractility to the muscles. The patient remained helpless because the mind had become accustomed to the paralytic condition of the body. Strong emotion breaking in upon this state has, however, revealed the return of function. It cannot be denied that something like this does take place, of which the crutches hung up at Lourdes and Knock are witnesses, for the pilgrims to these shrines are not all hysterical who leave these mementoes there.

Now, if unconscious repair can take place in non-spastic cases (and I am sure that it does), it is evident that in the spastic cases an organic contracture with coexistent spasm is an insuperable obstacle to the exercise of muscles that might otherwise be ready to respond to volitional impulses. The irritative processes set up by the primary disease may subside, yet because of the structural changes in muscles, spasm and contracture still exist and prolong the helplessness of the patient. I am led to believe that this may be the case because in several instances, when violent spasm followed every attempt to use a contractured limb, on division of the tendon with the subsequent lengthening the spasm did not reappear. Tenotomy certainly did not affect the central lesion. Such a fact as this opens a most interesting field for discussion of the causation of such symptoms as ankle-clonus and the various exaggerated reflexes of these diseases. It is not impossible that the increased tension produced by the shortening of the muscle may have much to do with its increased irritability. In reply to this suggestion, it may be objected that if this were true we ought to encounter a similar condition of irritability in the contractures of infantile paralysis. Unopposed muscular action in healthy muscles supplied from a normal center (normal so far as these muscles are concerned) is a very different thing from contracture that has taken place in a muscle with faulty innervation, derived from a center that is irritated or irritable because of definite anatomic changes. It is certain that repair in these cases can never be complete; yet, if even but a measure of repair has taken place in the brain or in the cord in these spastic cases, the increased tension of contractured muscles may be the most prominent factor in their continued irritability. However this may be, it is certain that I have seen a year elapse after tenotomy in these cases without the return of either contracture or spasm—a result that, I confess, surprised me, as I expected the return of ankle-clonus at least, when I had divided the gastrocnemii.

I have already, in this article, briefly indicated those disorders of the nervous system in which these contractures appear. It is hardly necessary for me to enumerate the diverse and cruel deformities that they entail upon their victims. As far as individual muscles are concerned, I have noticed that the contractures appear in those that are the most powerful and largest. Thus, in the upper extremity there is usually flexion at the forearm, wrist, and finger. The thumb, too, is adducted. In the thigh it is the adductors and flexors also that suffer, whereas in the leg it is the gastrocnemii. It seems as if the relative mass of the muscles determined the seat of the contracture. The stretching of the weaker muscles by their more powerful opponents may perhaps explain their comparative freedom from contractures and exaggerated reflexes.

It is a matter of regret that I am unable to bring before you to-night some of the cases on which I have operated. I must content myself with briefly mentioning a few of them. Later on I hope to be able to show results to this Society. At present I shall simply give the history of one case belonging to each of the classes indicated.

Case I belongs to the spinal spastic cases. I first saw it about two years ago. When about three years old he had been attacked with lateral-column sclerosis (Erb's paralysis) and at the time I saw him first was eleven years old. He then had contracture of the gracilis, semi-membranosus and semi-tendinosus of both sides, as well as both gastrocnemii and peroneals.

It was impossible for him to sit on the floor, or to straighten his legs at the knee, and every attempt to walk brought on intermittent spasm of all these muscles, so that he shook as if with an ague. He was a most unpromising case. He came to me in the apparatus I have already alluded to, with

numerous callosities and abrasions on his limbs, from hips to feet. It was utterly impossible for him to walk, even in a Darrach's wheeled crutch, so great was the pain produced by the apparatus. I have rarely seen a more helpless case. One year ago I got consent and divided the tendons of all the contractured muscles, twelve in number. The operation was subcutaneous and the recovery uneventful. When I put the child on his feet again I found that the spasm did not return, nor was I longer able to elicit ankle-clonus, although before the tenotomy of the gastrocnemii ankle-clonus had been most acute. This was a year ago. Up to this time the spasm has not returned, and the child is now able to get about a little on crutches. He can stand upright on his legs, or sit on the floor with his legs straight out in front of him —acts that had previously been impossible. In fact, there has been a radical change in his condition, an improvement that is on the increase, and I believe that with electricity, gymnastics, massage, and the assistance of appropriate prosthetic apparatus with which to assist the released but weakened muscles, he will ultimately gain some power of locomotion. He is already far less of a burden to himself and others.

It may be of interest to describe the shoes that I devised with the assistance of Dr. Slee, of the Hoagland Laboratory. We took casts of the boy's feet in plaster, and on these casts shrunk rather stout wetted sole-leather lined with spongiopiline, the shoe for each foot being in two pieces like a Sayre shoe, to admit of motion at the medio-tarsal joint. To these shoes was sewn a very broad sole, so that it is impossible for the child to tread on the side of the foot. The talipes having been rectified by the operation, there was a paralytic condition to deal with, and the shoes so far seem to be a success. In the first place, they are an absolute fit, having when wet taken the imprint of every prominence of the feet. The spongiopiline, too, is an additional safeguard against abrasion and painful pressure, and the shoes are far lighter and much less expensive than a pair of Sayre shoes.

The boy walks in them, whether in his wheeled crutch or on ordinary crutches, without the slightest pain, something never before accomplished. This in itself is a gain of no mean importance and has an important bearing on his future condition. It is almost impossible to coax any child into attempts to use weakened limbs, if the effort gives pain; and the case is now in a condition from which progress may be expected.

A type of the cerebral-spastic cases is the following: A young man, aged sixteen years, was brought to me from Utica, suffering from the late contracture of hemiplegia, the muscles chiefly affected being the flexors of the wrist and fingers.

This spring I performed an open operation on the flexores carpi ulnaris and radialis, splitting and suturing their tendons. The wounds healed by primary union, and up to this date the wrist has remained straight, nor have the contractures returned. It is my intention to treat the flexors of the fingers in a similar manner in the fall, provided the carpal flexors have at that time not recontracted.

Already the hand is more useful, because the sharp flexion at the wrist has been relieved. The tenotomy indicated, it is hoped, will give him a fairly useful hand.

Of those contractures that result from injuries to the peripheral nerves I have one case to report which I saw in consultation with Dr. Slee, the attending physician. The deformity was a *main en griffe* resulting from the destruction of the ulnar nerve (gunshot), with consequent wasting of the interossei and the remaining muscles of the group supplied by that nerve. Curiously enough, however, there was a contracture of the flexor carpi ulnaris. I suggested division of this tendon, in order to straighten the wrist, and subsequent division of the tendons of the extensor communis digitorum, with the object of affording the man a closed hand, which would certainly be more useful than the claw that he possessed. The flexor carpi ulnaris was divided and the wrist straightened, but permission was given to divide only the extensor tendons of the little and ring fingers. This also was done and with a very perceptible gain; still, although the vincula had also been divided, these fingers could not be entirely closed. The case was of eight years' standing, and I am of the opinion that further closure of the fingers was prevented either by adhesions or altered joint-relations. Had this operation been performed on the first appearance of the deformity a more useful hand would have been the result—more useless it could not have been.

Finally, I do not bring forward tenotomy in these cases as the one and only thing necessary to a cure. With the relief of the contracture and deformities the real treatment of these cases may be said to commence. This is the foundation-stone. It is absolutely essential, but it is only the beginning of treatment. Afterward electricity, massage, suitable prosthetic apparatus, all have their proper places and uses. Without them the case will almost certainly relapse into its previous helpless condition, even though the contractures do not return.

Without these aids and incentives to recovery the case will certainly not progress, and on the other hand I am confident that with tenotomy and appropriate after-treatment there are few of these sad cases that cannot be at least greatly improved. Absolute cure we can expect in very few.

IRRIGATION OF THE BLADDER IN CHRONIC CYSTITIS OF WOMEN.[1]

BY A. STEWART LOBINGIER, A.B., M.D.,
PROFESSOR OF PATHOLOGY AND CLINICAL SURGERY IN THE MEDICAL DEPARTMENT, UNIVERSITY OF COLORADO; SURGEON ALTERNATE TO ST. LUKE'S HOSPITAL; PATHOLOGIST TO THE ARAPAHOE COUNTY HOSPITAL AT DENVER.

IT is not the purpose of this paper to discuss those forms of cystitis that result from the presence of calculi, neoplasms, or tuberculous deposits in the bladder. Irrigation of the bladder will prove only an adjunct in the mitigation of such conditions. If we exclude these causes we shall still have a sufficiently comprehensive etiology for chronic cystitis. Common causes of simple chronic cystitis in women are: Traumatism during labor; gonorrhea; anteversion; anteflexion; traction by a prolapsed uterus; pelvic peritonitis and cellulitis, resulting in cicatricial bands; and irritation following lithemia of long standing.

So frequently has failure attended efforts to obtain perfect cure in these cases that unfortunately a tendency has arisen to resort to radical measures, like cystotomy or Emmet's buttonhole operation. None can fail to recognize the *raison d'être* of cystotomy in its proper domain; but a vigorous protest should be made against precipitately engaging in a dangerous surgical operation, when we have at hand a procedure that is more rapidly curative, and vastly more scientific. The principle of drainage in Emmet's operation may, upon the whole, be accepted as correct. But, as a matter of fact, what is gained by its adoption in practice is a new and easy channel of reinfection. Too often it is made the refuge of indolent practitioners who seek to escape the laborious details of a more elegant method of treatment.

It must be conceded that irrigation of the bladder has proved ineffective in the hands of many who have attempted it in an awkward and unscientific manner. How can a physician hope for success when he violates every law of asepsis, or is content to consign the difficult and delicate details of this procedure to the nurse or some member of the family? All too often the busy practitioner, finding it impossible to undertake the tedious task of washing out the bladder, has recourse to drugs as a convenient substitute. Diuretics and genito-urinary tonics have their place in therapeutics as adjuvants, but they are slow in their action on the diseased vesical membrane, and frequently have a disastrous effect on the digestion of patients. I am convinced that they are more often the cause of albuminuria, cloudy swelling of the renal epithelium, and chronic parenchymatous nephritis than the average practitioner would be free to acknowledge.

[1] Read before the Colorado State Medical Society, at Denver, June 22, 1892.

Since the advent of bacteriology the employment of drugs in surgical diseases is gradually becoming more limited. Nowhere is this fact more conspicuous than in the treatment of catarrhal inflammations of the stomach and bladder. In gastritis and cystitis the leading principle of treatment is the arrest of fermentation and the pathologic lesions induced by fermentation. This is best accomplished by means of irrigation with antifermentative solutions, and not by drugs. A necessary condition of treatment in both of these states is rest, not only of the organ affected, but also of the entire body. In gastritis we may rest the stomach by rectal alimentation. Although organic rest is not feasible in cystitis, yet, by having the patient assume the recumbent position, the pressure of superimposed viscera is removed, traction from cicatricial bands is relieved, and the bladder is free to rise in the pelvis.

Lavage should not be undertaken in any case of cystitis unless the patient consents to go to bed and stay there until cured. Before attempting to irrigate a diseased bladder the operator must recognize the fact that absolute cleanliness is the key to success. I am of the opinion that not even a capital operation demands more rigid and uncompromising adherence to the principle of asepsis.

The following instruments will be required: A new No. 10 soft-rubber velvet-eye catheter. This should be kept in a salt-mouth glass-stoppered bottle containing a 1 : 1000 solution of mercuric chloride. There should be a porcelain basin in which to scald the catheter; also a 1 : 2000 solution of bichloride in glycerin for lubrication. A fountain syringe, having a hard-rubber screw cut-off to limit the stream, will be necessary.

The antiseptic powder to be used in the solution injected must be kept in a perfectly clean glass jar. In preparing this solution a pitcher of the capacity of a quart will be needed. A quantity of cool sterilized water should be at hand, kept in a sterilized bottle having a sterilized cotton stopper. Boiling water may be obtained from a clean tea-kettle that has a cotton filter tied over the spout.

The formula for the antiseptic powder that I use is as follows:

℞.—Boric acid . . . . . ℥j.
Sodium biborate . . . . . ℥iv.
Sodium chloride . . . . . ℥ij.—M.

Experiment has proved that boric acid alone is but feebly germicidal; but, when dissolved in hot water in the presence of borax, a solution of real antiseptic value is obtained. The amount of the powder required at each irrigation will vary with the case, but, as a rule, a teaspoonful to a pint of warm water, or a saturated solution, will be well borne. It is better to dissolve the powder in boiling water,

the temperature of which can afterward be reduced by the addition of cool, sterilized water. No other antiseptic tried has been found to give satisfaction. Mercuric chloride, carbolic acid, and potassium permanganate have all been employed, but were badly tolerated, even in the weakest possible solutions.

In cases in which a tonic astringent was indicated I have employed a solution of silver nitrate, from $\frac{1}{8}$–$\frac{1}{2}$ grain to the ounce, injecting an ounce and a half immediately after the irrigation on every second or third day, and allowing the patient to retain the solution about thirty minutes. Many cases will be encountered that will not bear this solution stronger than $\frac{1}{4}$ or $\frac{1}{3}$ grain to the ounce. In all cases its use should be governed by the condition of the bladder and should be employed in the later stages of the treatment. At no time should the injection of silver nitrate be preceded by an irrigation with a saline solution. Simple sterilized water will be sufficient and will obviate the precipitation of silver chloride.

Much has been said and written in regard to the proper quantity of sterilized water to be used at each irrigation. In my experience, the average case has done well when not less than four ounces have been used; but the progress has been much faster when eight ounces could be tolerated. Before the case has been cured I have been able to use from sixteen to twenty-four ounces at each irrigation, with unquestioned benefit to the patient. This quantity of liquid does not occasion vesical distention or injury to the bladder-wall, because not more than from two to four ounces are injected at once, the process of siphoning off being repeated four or five times during the irrigation. The comfort of the patient may usually be accepted as a guide. There will be found a wide range of capacity, governed largely by the original size of the bladder in health, the degree of pathologic change in its walls, and the irritability present in disease.

In cases in which decomposition is prominent, there exist little saccules in the mucous membrane where erosion has occurred from the presence of bacteria, triple phosphates, and purulent débris. These pockets can never be reached and cleansed unless the mucous membrane can be gently unfolded and spread out as a smooth surface. It is, therefore, often necessary to produce gentle distention by hydrostatic pressure, in order to eliminate these foci of fermentation, which cause and perpetuate the trouble. Each operator must determine for himself the degree of distention with which it is safe to begin, remembering that in cases in which fermentation is most marked there is greatest erosion of the bladder-wall. One treatment daily will ordinarily be sufficient, but conditions are often present under which two treatments a day give by far the more speedy and satisfactory results.

It has been my object in discussing this question of irrigation to call attention to the supreme importance of absolute cleanliness. Experience has shown unmistakably that when ordinary antiseptic precautions were taken the results were fair and moderate; but when extraordinary precautions were observed, the results were accurate and perfect. And these results were not measured by gross methods and misleading symptoms, but by the unerring aid of frequent and searching microscopic examinations.

In preparing for irrigation of the bladder, the first step is to scald out a small pitcher. In this the antiseptic powder is dissolved in a few ounces of boiling water. While waiting for perfect solution, a pint and a half of boiling water should be poured into the fountain syringe and allowed to remain until the syringe is needed. The catheter, which has been kept in a bottle of 1 : 1000 bichloride solution, is removed to a small basin containing boiling water. The antiseptic solution can now be reduced in temperature by the addition of cool, sterilized water taken from the cotton-plugged bottle already mentioned. The prepared solution is now poured into the fountain syringe, all air is expelled, and the cut-off screwed down. Meanwhile, the nurse has cleansed the external genitals of the patient with a 1 : 2000 bichloride solution. There remains only to pass the catheter and connect it with the tube of the syringe. Taking the catheter from the hot water with fingers disinfected in an antiseptic solution, bichloride glycerin is poured over two inches of the end as a lubricant, and the instrument, in a good light, is passed instantly into the bladder.

If the bladder is full, considerable urine must be allowed to escape to make room for the antiseptic solution. If there is little urine, there is danger in allowing it all to run out and permitting germ-laden air to be introduced through the catheter. The only convenient means of expelling the air from the catheter, when this instrument is first introduced into the bladder, is to allow a small stream of urine to pass outward through it. Before the catheter is connected with the syringe tube, all air must likewise have been expelled from the latter by allowing a column of the antiseptic solution to pass through. At first, a gentle stream is turned on. The force is governed by the elevation of the reservoir and by the screw cut-off. The importance of injecting slowly cannot be too strongly emphasized.

When the patient begins to feel a sense of slight distention the tube and catheter are disconnected. While the operator cuts off the stream from the syringe with his right fingers, with his left he guides the stream from the catheter into a quart

bowl placed between the patient's legs. The operation of siphoning must not be carried to the extent of absolutely emptying the bladder. A little fluid should be left in to prevent the admission of air and to keep the bladder-walls from collapsing and causing spasm. It is best to leave at least an ounce of the antiseptic solution in the bladder after the last siphoning.

The following cases are cited in illustration of the foregoing treatment:

CASE I.—A married woman, thirty years old, eight months previously to coming under treatment for cystitis, had an abortion at the third month, followed by pelvic peritonitis. The uterus was anteverted and held in that position by firm cicatricial bands. For five or six months she had complained of urethral irritation. A few days before I was called, she had suffered exposure, which lighted up the old pelvic inflammation and at the same time aggravated the irritation of the bladder. There was present the characteristic desire to urinate frequently, the act being attended with intense pain. The pelvic inflammation was treated by rest, fomentations, and saline laxatives. Opium was used in such quantity as would relieve pain and secure rest. During this treatment the urine was analyzed and found to be swarming with bacteria, while pus, mucus, and calcium oxalate were found in great quantities. Repeated analyses showed no variation in these constituents.

Until the subacute symptoms subsided, bland drinks and diluents were given copiously to render the urine less irritating. At the first attempt to irrigate the bladder a silver catheter was used, but this could not be tolerated, even with the liberal use of cocaine. There was intense spasm of the vesical sphincter, and much annoyance resulted from blocking of the eye of the catheter with mucus. The attempt to use a recurrent silver catheter, with a large eye, caused such exquisite pain and such injury to the mucous membrane of the urethra, from the spasm produced by the margins of the eye, that any further attempt to use this ill-constructed instrument seemed barbarous. The irrigation was finally concluded with a simple velvet-eye soft-rubber catheter, No. 10, from the use of which the patient experienced great relief.

The second irrigation was attended with much less difficulty, and at each repetition the irritability was found greatly diminished. Daily examination of the urine showed that the pus and bacteria were decreasing. Within fourteen days from the first irrigation, not a motile bacillus or micrococcus could be found within the field, while the pus had diminished to only an occasional corpuscle. For the last four or five days of the treatment an injection of an ounce and a half of a solution of silver nitrate was given every other day. This injection followed an irrigation with plain sterilized water and was allowed to remain in the bladder as long as the patient could comfortably bear it, which was rarely more than thirty minutes. For the greater part of the time two antiseptic irrigations were given daily. Basham's mixture was prescribed after active inflammation had subsided. As soon as all pathologic products had disappeared from the urine and the patient had gained sufficient strength to travel, she was sent to the mountains. Although all treatment was withdrawn, save the copious use of water internally, she continued to improve and at the end of two months had regained much more than her usual weight and vigor.

This patient labored under the disadvantage of not being able to take milk, which is almost indispensable in the treatment of every form of cystitis. It is now one year since the case was first seen and inquiry has shown that no relapse has occurred.

CASE II.—A woman, twenty-eight years old, had been married twelve years, but had borne no children. Her general health was excellent, and she was remarkably well nourished. When first seen she could scarcely walk the distance of a square, and was annoyed beyond endurance by a ceaseless desire to urinate. This condition, which had existed for four or five months, was growing steadily worse, until the constant desire to pass water and the agony attending the act, made her a recluse from society. Her physical constitution was so fine that as yet the suffering had made but slight impression on her general health. Mentally she had become morbid and depressed and considered herself in a desperate condition. There could be no doubt as to the diagnosis, and the microscope clearly proved it to be a case of chronic cystitis. Pus, bacteria, mucus, and desquamated epithelium were present in unusual quantity. The urine became intensely foul within ten minutes after removal from the bladder, showing the bacteria to be especially active. The patient was put to bed and kept there until she fully recovered. The bladder was irrigated twice daily for fifteen days. The strictest detail of cleanliness was carried out from the first. To render the renal secretion abundant and bland, a bottle of Vichy was prescribed for each day, together with as much Manitou as could be taken. The diet consisted largely of milk, with a small variety of non-stimulating food. Frequent examination of the urine showed the pus and bacteria to be vanishing rapidly, and by the twelfth day no pathologic products could be found.

It should be stated that in every case in which the urine is examined as a guide for treatment, every vessel and instrument that comes in contact with the urine must previously have been sterilized. Without this precaution conclusions would be seriously vitiated.

Toward the end of the treatment an injection of two ounces of solution of silver nitrate, one-eighth grain to the ounce, was given every other day until four injections had been given. The tonic effect in this instance was especially noticeable. No internal medication was employed, as there seemed to be no indication for it. The patient was confined to bed for twenty days, but there were

four days of intermission in the treatment on account of menstruation. After the urine had for three days been free from bacteria and pus, the patient was discharged. Without the slightest discomfort she resumed her social privileges and duties, from which she had believed herself forever ostracized.

CASE III.—A young married woman, twenty-four years old, three months before coming under observation had been delivered of a child at term by a charlatan who had shamefully neglected her. Ever since her labor she had been confined to bed. Every attempt to assume the erect posture and walk about was attended with great discomfort and suffering. No definite idea could be gained as to the source of irritation, as the patient located her pains in almost every part of the body. Attention was first directed to the pelvis, but so tender was that area that examination occasioned the most intense suffering. Only digital examination could be made; this revealed an anteverted uterus, a lacerated os, and cicatricial bands in the vagina. Further questioning elicited the fact that one month after marriage the patient had had a severe attack of ovarian and pelvic inflammation, which would account for the presence of the cicatricial bands. Judging from the ovarian and pelvic tenderness, the various pains seemed entirely reflex in origin; but pursuing a routine practice, the urine was subjected to a microscopic and chemical examination, which at once cleared up the diagnosis. The urine contained much pus, mucus, desquamated epithelium, and bacteria. At no time in the examination did the symptoms point to the bladder as the chief cause of trouble. The condition of the vesical membrane indicated that irrigation was the proper treatment, and this was at once resorted to. Copious amounts of milk, Manitou and artesian water, and flaxseed lemonade were used as diluents. At first, the irrigations were practised only three times a week; but repeated microscopic examinations showed that the development and ravages of the bacteria were not coming under control. It was then decided to irrigate once a day, after which rapid and constant improvement followed. The aseptic and antiseptic precautions already detailed were carried out with unremitting care. In this, as in the other cases, the bowels and portal circulation were kept free.

Toward the end of the treatment, several injections of a very weak solution of argentic nitrate were given, but the patient bore them poorly and they were discontinued. The case was concluded without resort to medication, except for the exhibition of the fluid extract of corn-silk. When last seen, the patient had become strong and able to walk about briskly with comfort. Microscopic examination of the urine revealed absolutely no pus, bacteria, or other pathologic products.

In the foregoing discussion no claims are made for originality in the principles of treatment. I have wished to emphasize the importance of rigid adherence to asepsis and antisepsis, and the necessity of an accurate and impartial standard of estimating results, which can only be obtained by an intelligent use of the microscope.

THE MEDICAL ORGANIZATION OF GENERAL INSTITUTIONS FOR THE FEEBLE-MINDED.[1]

BY A. W. WILMARTH, M.D.,
FORMERLY ASSISTANT SUPERINTENDENT OF THE PENNSYLVANIA INSTITUTE FOR FEEBLE-MINDED CHILDREN.

INSTITUTIONS for the feeble-minded were first established, and have been largely maintained, as educational institutions. The early struggles of the pioneers in the work, as well as the abundant fruit of their labors, are too well known to need any detailed description. The possibility of improvement, in many cases to a surprising degree, was early and easily demonstrated, and is now generally acknowledged; and the future of the work is assured.

With the extension of the work, however, it becomes apparent that there are many children that, under the most thorough care and training, make but little progress. Others, worse than this, will steadily lose ground, both mentally and physically. Epilepsy is common among them, developing often while they are under care. They are especially prone to pulmonary tuberculosis and other diseases that accompany what is commonly termed a "scrofulous" diathesis; so that in all institutions for the feeble-minded the medical work forms no inconsiderable item, and, if so-called custodial cases are admitted, it is correspondingly increased.

It is my intention to briefly outline the conditions that demand the physician's care, the scope of his work, and to some extent the manner in which I believe that these demands should be met.

The general idea of idiocy and imbecility formerly was that they almost always represented a condition of arrested development of the brain, which could be largely remedied, or perhaps nearly or quite removed by special training, as imperfect development of the muscular system is remedied by calisthenic exercises under the direction of skilled teachers. Even now that idea is carried far beyond its legitimate bounds, not only among the laity, but also among members of the medical profession. Many a child is brought to institutions for the feeble-minded by hopeful parents who have been told by the family physician, and perhaps by others more skilled in diseases of the nervous system, that the child would, under training, outgrow its affliction; while the superintendent would see, almost at a glance, a case for which no hope existed except in its happy release from a blank existence.

I shall repeat some things said at previous meetings, which have a direct bearing on the diagnosis

[1] Read before the Association of Medical Officers of American Institutions for Idiotic and Feeble-minded Persons, at Elwyn, Pa., June 15, 1892.

and treatment of imbeciles, and the pathologic conditions that accompany defective mental power.

Let us take up briefly the varieties of incomplete or defective development as we find them post-mortem, and the probability of improvement in each variety.

Incomplete growth or development seems to exist in at least four distinct forms. First, a perfectly-formed brain, so far as the presence of all the typical convolutions is concerned, generally below the normal weight, though it may be above what has been assumed as the normal average. It is, however, of a simple type, the cortex perhaps thin and poor in those secondary gyri with which the brains of persons of marked intellectual powers are so well provided. Second, one or more of the principal convolutions may be much limited in length or size, perhaps to one-half or one-third of the normal. In one case that I recall, the first temporal gyri were only about two-thirds of their normal length. Third, a larger or smaller area of the cortex will be found soft, thin, and thrown into a considerable number of tiny folds, convolutions in miniature. Fourth, the brain may appear nearly or quite normal in size and form, but on section some portions of the cortex will be found pale-pink in color, instead of the usual grayish-red. Microscopic examination of these regions will show a paucity of well-formed multipolar cells, while cells of an embryonic type will predominate. All of these conditions are necessarily prenatal.

The first condition is found in many of the children whose progress is so satisfactory in our schools. We have no evidence, clinical or post-mortem, that there is any improvement in the anatomic structure of the last three varieties; possibly, there may be in the second, but the fact is not possible of demonstration.

In contrast with these conditions is another group of abnormal brain-conditions the frequency of which, I am afraid, has never been fully realized, and which are the result of actual disease. These were found in 53 per cent. of a series of 100 autopsies. Among the various lesions, sclerosis, in its various forms, is the most common. *Sclèrose tubereuse* is rapid in development, and fatal to the functional activity of the tissues involved. The atrophic form, for which Chaslin has proposed the name of neurogliar sclerosis, is more common, and may be represented by a tiny mass, be finely diffused, or even destroy an entire hemisphere. Thickening of the membranes, with consequent interference with the blood-supply and the nutrition of the cortical cell-groups; primary disease of the vessels and cell-elements, and that less frequent but equally disastrous process that slowly destroys the mental powers, but leaves no change in structure discoverable by present means of investigation—all these are among the direct causes of feeble-mindedness. These are variously ascribed by the parents—probably in many cases correctly ascribed—to dentition, violence, or the various infantile febrile diseases. The last-named pathologic condition is often found in the children of parents of eccentric character or highly-strung nervous systems; emotional or excitable, or exhibiting some phase of that multiform nervous instability that goes under the comprehensive term of "nervousness," and is peculiarly intractable to treatment. The foregoing are, I think, the lesions most frequently met in cases in which the causative conditions are not prenatal.

That comparatively slight causes should create serious and lasting results in infancy will be more readily comprehended when the rapid growth of the brain during this period is remembered. In the first seven years of life the brain is said to attain nearly its full size. As an instance of the effect of the withdrawal of proper nourishment from a rapidly-growing organ, one needs but to look at the indelible mark often left on the growing teeth by acute illness affecting nutrition during dentition. Tuczek, basing his statements on investigations by Huschke and Bischoff, estimates the daily increase in the size of the brain during the first year of life as more than one cubic centimeter. Dr. Robert Boyd estimates the brain-weight at birth in the female as 10 ounces, and as 11.65 ounces in the male. In 15 male children between the ages of three months and six months the weight of the brain was 21.29 ounces; in 46 children between six months and twelve months, 27.42 ounces; in 34 children between one year and two years, 33.25 ounces; in 29 children between two years and four years, 38.71 ounces. Nearly all of the primary convolutions are present at birth, and, according to Schwalbe, the secondary and tertiary folds are evident by the end of the fifth week after birth. Is it not probable that an organ that requires the pabulum to support such active growth will feel any marked deprivation, and feel it permanently?

These few facts in connection with the mental defection in our wards bring us to the question as to the completeness of our medical work. With those children whose mental defects depend on some form of incomplete development the school must be the agent in improvement. It is difficult to see how medical aid can be of much service. With the other and, perhaps, larger class we are handicapped by our lack of knowledge as to diagnosis between these different pathologic conditions, and the means and effects of proper medication. In the past it has required all the energy of our superintendents to develop methods of education and care, and to bring the work properly before the public and the legislatures of the different States. But now this work

has, in most States in which institutions exist, attained a permanent place, and the time seems ripe for closer study of the comparatively unstudied conditions that bring under our care so many afflicted ones. And how shall their demands best be met?

We can derive but little help from books on the differential diagnosis and treatment of these conditions of undeveloped or injured brains, but we have abundance of material and ample opportunity for the study of them. For years, in our principal institutions, information bearing on the etiology of idiocy has been collecting. To this should be added close clinical observation, with careful record of all symptoms bearing on disturbance of the nervous system in youth, and last, but not by any means least, these records should be carefully compared with existing lesions, as revealed at the post-mortem table. We should strive also to bring our charges under our care early in life, before the morbid processes are matured and the brain is irretrievably injured. In this way, and only in this way, does it seem to me that we can ever master the full extent and detail of our work. The results of such work should be given to the general profession by publication as fast as it yields reliable data, for with the profession largely rests the care of our children during the early stages of disease, and in its hands rests the application of preventive measures, if such measures can be determined.

How much good will result from such studies we cannot estimate; but, if the infirmity which it is our life-work to combat has for its foundation a material cause, our work will always be incomplete until we have mastered the knowledge of that cause and have employed all of our resources to remedy it. Should such effort result in making us more expert in diagnosis, its effects on our schools' care would become at once available. If we knew in which children the retrograde change was still active; in which it had ceased to progress; in which hopeless non-development would make school-training useless; in which a well-formed but inactive brain needed all the mental stimulus we could give it; or in which a brain, still in the active process of disease, required rest from mental strain, and needed the use of a simple, unirritating diet, stated periods of rest during the day, careful exercise in the field, on the farm, or in the gymnasium; in short, such care as adults in the same condition would receive in a well-appointed sanitarium; then our work would be placed on a far more advanced basis. I trust the time is not far distant when one medical officer in each of our institutions can be sufficiently relieved from ordinary medical and supervising cares so that he may give much time to systematic study of disease of the nervous system in infants, the burden of which plainly rests on our shoulders.

We cannot discuss any question regarding the feeble-minded without giving a place to that important factor—the epileptic. His treatment will find a place in a following paper. The disposition of epileptics in regard to each other and to their companions who are not subject to spasm demands some attention. Shall they be grouped together, or scattered throughout our schools? For convenience and economy in care the first proposition is undoubtedly preferable, and, when a considerable number are to be cared for, they can be very comfortably classified. One question meets us here: Does the contact of epileptic children with others similarly afflicted and with children not afflicted with this disease tend to establish, increase, or perpetuate spasm? I am not satisfied in my own mind that this may not be the case. I have been forced, however, from my own observations and from what I could glean from those of others, to believe that there are few tasks more hopeless than that of attempting the cure of epilepsy that has begun before and persisted beyond the age of puberty; also, that in younger children in whom epilepsy is secondary to destructive lesions, as evidenced by paralysis, marked impairment of some special sense, or decided deprivation of some mental faculty, though spasm may cease, mental improvement is not the usual result in the majority of cases. Justice to other children seems to demand that these cases, with their disturbing influence, should be removed from among the children free from convulsions. With the younger children, however, when the discouraging conditions named do not exist and compel us to an unfavorable prognosis, we may scatter them among the general classes with advantage to them, and without much apparent detriment to their companions, until we are assured that recovery is improbable.

Another point that I would urge is the assumption of the treatment of epileptics as early in life as is possible. Statistics indicate that by far the greater number of recoveries occur in early childhood. It is then that cerebral tissue-change is most active, the morbid and irritative conditions are in their earlier stages, and healthy action is more likely to be restored in response to medical and hygienic measures. Among the serious impediments in the treatment of epileptics is the frequency with which such children will obtain nuts, unripe fruits, and other abominations, either through the mistaken kindness of friends or the proximity of such material to the buildings. I need not dwell on the desirability of guarding our patients, so far as is possible, from these creators of cerebral mischief.

In regard to that indispensable aid to the physi-

cian—the nurse—we do not absolutely need women who have received a high degree of special training, even if the salaries paid in our institutions would command such assistants. An inexperienced woman, if quick-witted, patient, and possessed of a moderate degree of that tenderness and tact that are essential to acquire success in nursing, soon learns to supply every need of our children, and is far better than any trained nurse whose accomplishments will not secure reasonable success in general nursing.

A brief allusion to one more subject, and I will have finished. It is in relation to the study of the causation of idiocy. I cannot close this paper without an earnest plea that this work be energetically pushed, not only in the way of collecting clinical data and family histories, but also in the way of anatomic research. Much time has been spent, and well spent, in examinations of the skull, the jaw, and even the nasal bones of the idiot—too little on the brain itself. The little that has been done demonstrates that it is a work promising rich results—far more promising than similar work among the insane, and which, in connection with the clinical material being collected, will tend to give us a rational theory of causation, a more scientific classification, and, I hope, still better methods of care and treatment.

SYMPHYSIOTOMY, WITH THE REPORT OF AN OPERATION.[1]

BY BARTON COOKE HIRST, M.D.,
PROFESSOR OF OBSTETRICS IN THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

SYMPHYSIOTOMY has as remarkable a history as any procedure in surgery. Suggested for the first time in the Surgery published by Pineau in 1598, and first performed upon a living woman in 1777, the idea may be said to be three hundred years old, while its practical application dates back more than a century.[1] From the year of the first operation until 1858 symphysiotomy was performed 85 times in different parts of the Continent of Europe and once in England, with a mortality of 33 per cent. The frequency of the operation diminished after the first few years, until in 1858 it had practically died out. It was revived, however, in Italy in 1866, and in the succeeding twenty years 70 operations were performed with a mortality of 24 per cent. Italy continued to be the exclusive field of the operation until a year ago, when it was again tried in Paris by Pinard, whose interest in it was aroused by a visit of Spinelli from Italy. Ten operations have since been performed in Paris, two in Dresden, and one in Strasburg. From January 1, 1886, there have been 52 operations, with only a single death, due to septic infection before the operation was undertaken. Twenty-three symphysiotomies have been done already this year, and the last 34 women have all recovered.

We owe the introduction of symphysiotomy in this country to Dr. Robert P. Harris, who, as is well known, has long been interested in the subject, and at the recent meeting of the American Gynecological Society in Brooklyn read a paper tracing the development of the operation, showing by most laboriously collected statistics the present brilliant results achieved by it, and demonstrating, by the description of typical cases, its utility in labors otherwise insuperably obstructed by a contracted pelvis.

Ten days after Dr. Harris's paper was read, on September 30th, the first operation in this country was performed by Dr. Charles Jewett, in Brooklyn. Three days later it was again performed at the Maternity Pavilion of the University Hospital in this city.

The position of symphysiotomy is now established beyond a doubt. Its modern revival I believe to be the most important advance in obstetric surgery since the general adoption of abdominal section for the treatment of early extra-uterine pregnancy. It is applicable in contracted pelves with a conjugate over 67 mm., and, therefore, should be the method employed in almost all cases of the kind in this country, for a greater contraction of the pelvis is rarely seen among us. It should, moreover, almost entirely displace the Cesarean section for a relative indication. It is a much simpler, an easier, and a safer operation. This is also the opinion of Leopold, who cannot be accused of prejudice against Cesarean section, with his brilliant record in that field.

There is and will be for some time, perhaps, an objection to the operation from those who have no experience with it, on the ground that sufficient space cannot be thus gained. In answer to this objection is the fact that the pubic bones may gape 7 cm. after their separation, and the statement of Morisani, that the conjugate is thereby increased from 1.3 to 1.5 cm. But an absolutely conclusive answer is furnished by the subjoined clinical records of some typical cases.

Leopold's First Case.[1]—A dwarf, 135 cm. tall, with the following pelvic measurements: Sp. il., 22 cm.; cr. il., 24 cm.; tr., 28 cm.; conj. ex., 17½ cm.; conj. diag., 8¾ cm.; conj. vera, 6¾ cm. She had been delivered thrice previously, twice of dead children, once by the induction of premature labor. After a labor of seven hours and twenty minutes, ushered in by rupture of the membranes,

[1] Read at the meeting of the Philadelphia County Medical Society, October 12, 1892.

[2] R. P. Harris: Amer. Syst. of Obstet., vol. ii.

[1] Centralbl. f. Gyn., 1892, No. 30.

symphysiotomy was performed, with the head above the brim. In ten minutes the child was extracted with forceps. The head was of normal size (transverse, 9¾, 8¼; circ., 34).

Leopold's Second Case.[1]—A woman, delivered once before by craniotomy. The pelvic measurements were as follows: Sp. il., 22; cr. il., 25; tr., 30½; conj. ext., 16; conj. diag., 8½; conj. vera, 6¾. Labor began in the evening; membranes ruptured seven hours later; operation three hours later with head above the brim. Extraction of the child in ten minutes with forceps. The head had a circumference of 35¼ cm.

Porak's Case.[2]—A primipara with rachitic pelvis, conjugata diagonalis being 9.6 cm., and pelvis presenting some asymmetry, very likely from scoliosis. Labor began on June 10th. About twelve hours later the membranes ruptured, and from eight to ten hours afterward the os was completely dilated. The head rested above the brim of the pelvis. Forceps was applied, but all efforts to engage and extract the head failed. The symphysis was opened, and the head then extracted "with the greatest ease" by the forceps. Recovery.

Freund's Case.[3]—A woman, in labor six days; water drained off for two days. After opening the symphysis the head was delivered in fifteen minutes without instruments. There were two previous deliveries, one of a dead and one of a living child. The pelvic measurements were: Sp. il., 24½; cr. il., 27; tr., 31; conj. ext., 18½; conj. diag., 10 cm.; conj. vera, 8¼. The child's head after birth was found unusually large and hard. B. T., 10 cm.; B. P., 11 cm.; F. O., 12 cm.; M. O., 14 cm.; S. B., 10 cm. Circumference, O. F., 37 cm. Recovery.

The University Maternity Case.—A German woman, aged nineteen, pregnant for the first time, was admitted to the University Maternity, September 24th. The examination by the resident physician and the students showed the child to be presenting by the head, the back to the right. The pelvic measurements were: Sp. il., 25 cm.; cr. il., 27 cm.; tr., 30½ cm.; conj. ext., 18 cm.

The internal examination made by myself just before operation showed the conjugata diagonalis to be 9½ cm.; conj. vera, 7¾ cm. The girl fell in labor Saturday morning, October 1st. The pains, recurring all day, on Sunday became very vigorous. On Monday morning, when my attention was first called to the case, the contraction-ring was high, the uterus stood almost straight out from the body, and the child's head was movable above the superior strait. The membranes were unruptured. By no justifiable degree of force could the head be made to enter the pelvis. The fetal heart-sounds were good. It was evidently, therefore, a choice of Cesarean section, craniotomy, or symphysiotomy. The last was done, with the assistance of Dr. R. C. Norris and the valuable advice of Dr. R. P. Harris, who kindly consented to be present. The child was delivered with forceps in one hour and four minutes from the time the operation was begun. I purposely took my time, for the os was only the

Jewett's Case.[4]—The first symphysiotomy in America, performed by Dr. Charles Jewett, of Brooklyn, on September 30, 1892. Woman, a native American, primipara, fell in labor September 30, 1 o'clock A.M.; at 10 A.M. the occiput appeared at the vulva, but was held fast by an approximation of the ischiac tuberosities, reducing the bisischiac diameter to three inches. Nine hours later Dr. Jewett first saw the patient. The forceps had been vigorously used in vain. Symphysiotomy was performed two and one-half hours later, or eleven and one-half hours after the impaction of the head at the outlet. Delivery was effected by supra-pubic pressure and by shelling the head out with the fingers in the rectum The woman is now in good condition, but unfortunately the child died twenty-four hours after birth, from the compression to which the skull had been subjected during its long impaction in the pelvis.

size of a dollar, and was very rigid, so that a more rapid extraction would have seriously injured the cervix. Head measurements: B. T., 7½; B. P., 9; F. O., 12; M. O., 13½; circ., 34. Mother and child are well.

The technique of symphysiotomy is simple and easy. After thoroughly cleansing the field of operation and disinfecting the vagina as well, a short vertical incision is made on the abdominal wall, reaching to about three-quarters of an inch above the symphysis. The attachments of the recti muscles are severed just sufficiently to admit one finger. The forefinger of the left hand is passed under the symphysis, and upon this as a guide the curved

[1] Centralbl. f. Gyn., 1892, No. 30.
[2] Annales de Gyné cologie, September, 1892.
[3] Müllerheim: "Ueber die Symphysiotomie," Centralbl. f. Gyn., 1892, No. 30.
[4] Personal communication.

knife of Galbiati is inserted until its beak projects under and in front of the symphysis. The joint is then cut upward and outward. To avoid injury to the urethra, a metal catheter is inserted and pressed by an assistant downward and a little to the right, while the knife is placed a little to the left; but with Galbiati's knife I should think that there is little likelihood of cutting the urethra or the plexus of veins in its neighborhood. I at first thought that an ordinary probe-pointed, curved bistoury would serve my purpose well enough, but I quickly laid it aside, and was glad to avail myself of Galbiati's knife, an illustration of which is appended, which I happened to possess—at the time one of the three, I believe, in the country.

As soon as the joint has been severed, the wound should be covered with iodoform-gauze, and then the child extracted with forceps, or allowed to be delivered naturally, as seems best in the individual case. I should, I think, almost always prefer the forceps. It is well to have the trochanters supported by assistants during the passage of the child through the pelvis, so that the sacro-iliac joints shall not be injured.

As soon as the delivery is completed the wound is sewed up, the lowest stitch, if desired, passing through the top of the symphysis. How the whole symphysis can be stitched up, as Leopold claims to have done, I do not understand. After closing the wound and dressing it, rubber adhesive strips are placed around the hips and the lower abdomen, and a tight binder applied. The symphysis unites surprisingly soon, and three weeks after the operation the patient can walk as firmly and as well as ever.

There is only one disturbing thought in connection with the introduction in this country of an operation destined to do so much good. The charge of superficiality lies with some justice against us. We are too ready to reach out toward the top without a sufficient basis of solid preparation, and I fear that symphysiotomy may be undertaken by many who cannot correctly measure a pelvis and who have not the experience to decide whether a head can pass through the pelvis in which it is about to enter or in which it is engaged. There is consolation, however, in the reflection that if symphysiotomy should be done needlessly the results are not likely to be so disastrous as in the case of Cesarean section, which, to my knowledge, was done several times unnecessarily during the excitement produced among medical men by the improved results of the Sänger operation.

Dr. William Macewen, Surgeon to the Royal Infirmary of Glasgow, has been appointed Regius Professor of Surgery in the University of Glasgow.

PURPURA HEMORRHAGICA.

BY B. K. RACHFORD, M.D.,
CLINICIAN TO CHILDREN'S CLINIC, MEDICAL COLLEGE OF OHIO.

DURING the past summer I saw two cases of purpura that I think worthy of publication. One was a case of purpura fulminans, the other a case of purpura hemorrhagica in which the blood-state was carefully studied from day to day.

CASE I was a helpless idiotic epileptic child, nine years of age, of Irish parentage. The family consisted of nine persons, who occupied a three-roomed cottage, and the hygienic surroundings were bad. Two of the children had diphtheria at the time, and one of them was hopelessly ill, dying a few days later of septicemia. While at the house on the morning of May 1st, the mother asked me to look at the idiot child who did "not seem quite well this morning." The child was irritable, refused to take food, and over the scrotum, abdomen, and thighs were a number of dark-blue hemorrhagic spots, but there was no evidence of diphtheria. These spots increased in size till they ran together, producing a uniform discoloration over the abdomen, scrotum, and anterior portion of the thighs. Small spots appeared also over other portions of the body; but at no time was there any bleeding from the mucous surfaces.

The child died on the morning of May 2d, about twenty-four hours after the first symptoms of the disease were noticed.

The following points in this case were of special interest to me:

1. Its foudroyancy.
2. The absence of hemorrhage from the mucous membranes.
3. The presence in the same room of malignant diphtheria.
4. The unfavorable hygienic surroundings.

CASE II.—H. W., seven years old, a German.

Family history. Maternal grandfather and grandmother died of pulmonary tuberculosis, and his mother's only brother now has the same disease, but his mother has always been well. On his father's side the family history is good. One sister died in "spasms" when five months old. The patient has two sisters living, five and two years old, respectively. They are anemic, and have enlarged lymphatic glands in the neck. The family is very poor and the hygienic surroundings are bad.

Personal history. The boy is not well nourished, and is rather thin and pale when at his best. The lymphatic enlargement in his neck is well marked. He has never before had a severe bleeding spell.

April 7, 1892. During the night his nose began to bleed without apparent cause.

8th. The bleeding continued and hemorrhagic spots began to appear upon the legs, arms, and chest. They were dark-blue in color, and varied in size from a silver dime to twice the size of a silver dollar.

11th. I saw the boy for the first time this morning. He had been bleeding from the right nostril continuously for four days. He was very anemic and too weak to stand alone. Pulse 130. I plugged the nostril with absorbent cotton saturated with tannic acid, and ordered ½ grain of ergotin every two hours, absolute rest in bed, head elevated, and milk diet.

12th. Still bleeding. Pulse 140 and thready. Reapplied plug saturated with solution of gallic acid, and continued ergotin, diet, and rest.

13th. Bleeding stopped last night. Pulse 136, irregular and thready. Blood-corpuscles 1,866,000 to the cubic millimeter. Took out the plug, distinued the ergotin, and ordered saccharated carbonate of iron, 3 grains every four hours.

14th. Boy began to bleed a short time before I reached the house, but the bleeding has been slight. Blood examination shows 25 per cent. of hemoglobin and 2,000,000 blood-corpuscles to the cubic millimeter. Reapplied cotton-plug saturated with gallic acid, and ordered ergotin, iron, diet, and rest.

15th. Hemoglobin 30 per cent., and 2,000,000 corpuscles to the cubic millimeter. No bleeding since yesterday; boy seems much better. Pulse 136; has some appetite, takes milk and eggs. Left out the nasal tampon. Other treatment the same.

16th. Saw boy at 5 P.M. He had been bleeding since some time in the night. During this time he lost a large amount of blood. He seems weaker than ever this morning. Pulse 146 and very thready. Hemoglobin 25 per cent., and 1,300,000 red corpuscles to cubic millimeter. The hemorrhagic spots are scattered over the entire body; the old ones are fading and are brown in color, the fresh ones are dark-purple. This morning the baby sister of the patient struck him a slight blow on the forehead with an Easter egg, and there now marks the spot a dark-blue spot the size of a dollar. But a number of other spots have appeared spontaneously. I plugged the nostril as before, continued the iron, but discontinued the ergot as I felt quite sure it was doing no good.

18th. No bleeding for two days. Hemoglobin 27 per cent., and 1,800,000 corpuscles. Boy is much stronger. Is eating milk, eggs, and bread. Continued iron, ordered rest, and left out nasal tampon.

20th. No more bleeding. Hemoglobin 30 per cent., 2,240,000 corpuscles. Patient is very much better, can walk across the floor, has good appetite and digestion. Pulse 120. The hemorrhagic spots are fast disappearing. He has been taking 3 grains of saccharated carbonate of iron every four hours. Iron was continued, and meat and potatoes added to his diet.

24th. Has not bled any for a week; he is going about the house; he feels well and has a good appetite. There are only a few faint spots marking the location of the hemorrhagic spots. Boy is still very pale. Hemoglobin 35 per cent., 2,800,000 corpuscles.

May 3. Boy is going to school and says he is well. Hemoglobin 40 per cent., 3,200,000 corpuscles. Ordered syrupus ferri iodidi, ℥ss, three times a day.

8th. Boy seems as well as before the attack Hemoglobin 55 per cent., 3,200,000 corpuscles.

July 1. Have not seen the boy for nearly two months. He took the iodide of iron for about two weeks and has taken nothing since. He is now quite in his usual health, yet he looks anemic, and has some enlargement of the cervical lymphatics. Hemoglobin 75 per cent., 3,800,000 corpuscles.

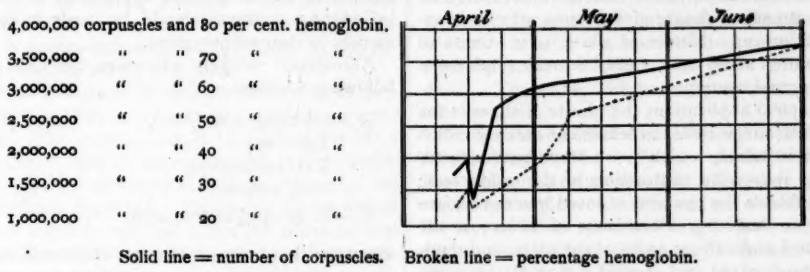
The following points in Case II were of special interest to me.

The boy stopped bleeding on the 16th of April, at which time there was 25 per cent. of the normal quantity of hemoglobin found in the blood, and 1,300,000 corpuscles to the cubic millimeter of blood. From this it will be seen that the amount of hemoglobin and the number of corpuscles were about equally diminished by the hemorrhage. But during the four or five days following the cessation of the hemorrhage there is a marked difference in the rapidity of increase of the number of corpuscles and the amount of hemoglobin. During this time the corpuscles increased in number 25 per cent., but the hemoglobin, notwithstanding the fact that the boy was taking iron all the time, only increased 5 per cent. During the next three weeks (the boy taking iron all the time) the hemoglobin increased much more rapidly than the corpuscles, till there was almost a like percentage of each present.

The foregoing observation is practically the same that I recorded in a paper read before the American Pediatric Society (May, 1892) entitled "The Anemia of Tuberculosis." I there said that after a severe hemorrhage the corpuscles were manufactured so much more rapidly than hemoglobin as to produce a decided chlorosis; the explanation for this seems plain. Hemoglobin cannot be manufactured without iron; the rapidity of the formation of hemoglobin would, therefore, be limited by the iron-supply, but not so with the corpuscles; they are manufactured so rapidly under physiologic laws to meet the deficiency, that there is not sufficient hemoglobin to give to each corpuscle the proper percentage of hemoglobin—hence the chlorosis. But this chlorosis gradually disappears, the corpuscles being manufactured so slowly after a time that each corpuscle gets the requisite proportion of hemoglobin. The comparative rapidity of increase of corpuscles and hemoglobin may best be shown by a chart. This chart will be seen to differ from the one given by Dr. Osler in his *Practice of Medicine.*

The etiology and pathology of purpura are by no means well understood, and it is not my purpose here to express an opinion as to the cause and nature of this affection. But I do wish to call attention to some clinical features of the cases reported, that the reader may judge whether or not they have any bearing on the etiology of this disease. But before doing this I would call attention to the well-

known fact that symptomatic purpura may occur in any of the zymotic diseases, such as scarlet fever, smallpox, septicemia, tuberculosis, etc., and it may also be produced by certain chemical poisons, such as the virus of snakes, mercury, belladonna, etc. The inference here is that in both instances the disease is caused by chemical poisons. In the zymotic diseases the chemical poisons may be manufactured by the microörganisms in their struggle for existence with the cells. But how these chemical substances produce purpura is a question we are not prepared to discuss with any satisfaction. I will, therefore, only call attention to some of the clinical features of the cases reported and let the reader judge of their etiologic bearing.



Solid line = number of corpuscles. Broken line = percentage hemoglobin.

1. The course and duration of the disease was not, I am sure, influenced by the medicines given. Case II ran its course like one of the self-limited zymotic diseases, the disease terminating under the same hygienic conditions as those under which it began.

2. Both of these cases occurred in delicate children with bad hygienic surroundings; in the room with the first case there was a case of malignant diphtheria, and in the second case there was a bad tuberculous family history.

ORIGINAL LECTURE.

THE TREATMENT OF ANAL FISSURE, OR IRRITABLE ULCER OF THE RECTUM.[1]

By LEWIS H. ADLER, Jr., M.D.,
INSTRUCTOR IN RECTAL DISEASES IN THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE.

Gentlemen: It is highly important to the success of any plan of treatment directed toward the cure of anal fissure that attention be paid to the condition of the bowels. Regularity of habit should be established and the evacuations rendered semi-fluid, as hard stools generally aggravate the symptoms.

To accomplish these purposes enemata or mild aperients should be employed, and the diet must be regulated, the use of bland and unirritating food being enjoined. All drastic purges should be avoided, as they are more or less stimulating and irritating to the extremity of the rectum.

In order to secure a daily evacuation of the bowels and to render the movement as painless as possible I am in the habit of ordering an enema of warm water or one of rich flaxseed tea, say from half a pint to a pint, to be administered every evening, preference being given to the night-time, as the patient can then assume the recumbent posture, which position, combined with the rest, affords the greatest protection from subsequent pain. If the first enema should prove ineffectual in producing the desired result another should be given in half an hour.

In order to relieve the pain and spasm of the sphincters attending the evacuation, it is well about half an hour before the enema is employed to use a suppository consisting of

℞.—Ext. belladonnæ . . . gr. ¼ to ½
Cocainæ hydrochlor. . . gr. ¼ to ½
Ol. theobromæ . . . gr. x.
Misce et fiat suppositoria j.

Or, instead, an ointment of extract of conium may be used, as recommended by Mr. Harrison Cripps:[1]

℞.—Ext. conii . . . . . ℥ij.
Olei ricini . . . . . ℥iij.
Ung. lanolini . . q. s. ad ℥ij.—M.

A small quantity of this ointment should be smeared over the parts five minutes before a motion is expected, and again after it has taken place.

The various methods of treating anal fissure may, for convenience sake, be divided into the *palliative* and the *operative*:

Palliative Measures.—Palliative treatment will meet with success in a considerable proportion of cases, especially when there is no great hypertrophy of the sphincter muscles. Allingham[2] states that the curability of the lesion does not depend upon the length of time that it has existed, but rather upon the pathologic changes it has wrought. This same authority states that he has cured fissure of months' standing by means of local applications, when the ulcers were uncomplicated with polypi or hemorrhoids and when there was not marked spasm or thickening of the sphincters.

It is essential to the success of the treatment of fissure, especially by local applications, that rigid cleanliness of the parts be maintained; for this purpose the anus and

[1] Delivered at the Philadelphia Polyclinic.

[1] Diseases of the Rectum and Anus, second edition, London, 1890, p. 189.

[2] Diseases of the Rectum, fifth edition, London, 1888, p. 215.

the adjacent portions of the body should be carefully sponged night and morning and after each stool with hot or cold water, the temperature being regulated to suit the patient's comfort.

In applying the various local remedies it is necessary first to expose the ulcer to view, and to anesthetize its surface with a four per cent. solution of cocaine hydrochlorate, well brushed in with a camel's-hair pencil. The application may have to be repeated once or twice, at intervals of three or four minutes, in order to obtain the desired anesthetic effect.

If any ointment has been used about the fissure the anus should be subjected to a hot-water douche before using the cocaine, as cocaine will not exert its anesthetic influence on a greasy surface.[1]

Among the different remedies that have been used in the local treatment of fissure of the anus may be mentioned the following: Nitrate of silver, acid nitrate of mercury, fuming nitric acid, carbolic acid, sulphate of copper, the actual cautery.

Of these topical applications the nitrate of silver is the best. Its effects are various: it lessens or entirely calms the nervous irritation, which is so important a factor in producing spasmodic contraction of the sphincters; it coats and shields the raw and exposed mucous surface by forming an insoluble albuminate of silver; it destroys the hard and callous edges of the ulcer, and tends to remove the diseased and morbid action of the parts. The form in which I usually employ this salt is in solution (from ten to thirty grains to the ounce). To accomplish the best results the solution should be used once in twenty-four or forty-eight hours, according to circumstances. It may be applied by means of cotton attached to a silver probe or to a piece of wood. The application is made by separating the margins of the anal orifice with the thumb and index finger of the left hand, and introducing into the anus the probe charged with the solution.

According to Bodenhamer,[2] should the ulcer be more than a third of an inch above the margin of the anus, it will be necessary to use the speculum. The solution is to be applied to the fissure only; a few drops are all that is required. If thorough local anesthesia has been induced by the use of cocaine the application of the silver salt produces little, if any, suffering, for by the time that the anesthetic has lost its effect the otherwise acute pain of the nitrate of silver will have passed away.

After each application the part should be smeared well with an ointment of iodoform (thirty grains to the ounce). The odor of iodoform may be disguised by the addition of a few drops of attar of roses. Iodol may be used instead of iodoform, and in the same way. After the ulcer has been touched once or twice with the silver solution the effect will be, in the cases that are benefited by this treatment, a considerable mitigation of the pain from which the patient suffered when at the closet and afterward, and the sore will present a healthy, granulating appearance, and slowly contract in size.

Unless the fissure be complicated with some other affection in children and in young persons, anal fissure is almost always curable by adopting the mode of treatment laid down.

Some authorities speak highly of the use of the acid nitrate of mercury, fuming nitric acid, carbolic acid, the actual cautery, etc., but in my opinion their employment is attended with more suffering than follows the use of the nitrate of silver or the simple operative treatment presently to be described. Furthermore, the application of these remedies is not so certain to effect a cure as either of the two procedures just mentioned, so that I rarely resort to their use.

The daily introduction of a full-sized bougie, made of wax or tallow, will sometimes act beneficially in cases of fissure by stretching the sphincter and producing such an amount of irritation as will set up a healing process in the ulcer. An application of cocaine or of belladonna ointment should be made to the part previously to their employment.

Allingham[1] strongly advocates the local use of the following ointment:

℞.—Hydrarg. subchlor. . . . iv grains.
Pulv. opii . . . . ij "
Ext. belladonnæ . . . ij "
Ung. sambuci . . . ℥j. —M.
S.—To be applied frequently.

He states that he has had many cures with this ointment alone. Another excellent ointment recommended by this same authority[2] is:

℞.—Plumb. acetatis . . . . gr. x.
Zinci oxidi . . . . gr. x.
Pulv. calaminæ . . . gr. xx.
Adipis benzoinat. . . . ℥ss.—M.

An ointment of the oxide of mercury, thirty grains to the ounce, has cured many cases.

OPERATIVE TREATMENT.—In the more severe cases local treatment will fail to produce a cure, and operative interference will be rendered necessary. There are three methods of repute to be considered in this connection: forcible dilatation, incision, and a combination of these two procedures, viz.: dilatation and incision.

Forcible dilatation. This is the operation recommended by Récamier, Van Buren, and others. It consists in the introduction of the thumbs into the bowel, back to back, and then forcibly separating them from each other until the sides of the bowel can be stretched as far out as the tuberosities of the ischia. It is essential to place the ball of one thumb over the fissure and that of the other directly opposite to it, in order to prevent the fissure from being torn through and the mucous membrane stripped off. As pointed out by Allingham,[3] it is well to repeat the stretching in other directions until the entire circumference of the anus has been gone over. In this manner, by careful and thorough kneading and pulling of the muscles, the sphincters will be felt to give way, and will be rendered soft and pliable. This procedure should always be practised with the patient thoroughly under the influence of an anesthetic, and it should occupy at least five or six minutes. This operation is perfectly safe, but as it is no less severe than the

[1] W. P. Agnew: Diagnosis and Treatment of Hemorrhoids, etc., second edition, San Francisco, Cal., 1891, p. 91.
[2] Anal Fissure, p. 111.

[1] Loc. cit., p. 214.
[2] Loc. cit., p. 215.
[3] Loc. cit., p. 226.

operation by incision, and as it fails to effect a cure in some cases, I can see no advantage in adopting it instead of the more satisfactory and always successful plan of treatment—combined dilatation and incision. It may be found preferable, however, in some cases on account of the prejudice of patients against the use of the knife.

Incision. A fissure can be cured by making an incision through the base of the ulcer and a little longer than the fissure itself, so as to sever all of the exposed nerve-filaments. The cut should divide the muscular fibers along the floor of the ulcer. In a certain proportion of cases this operation will meet with success, but it is not so certain and radical as the operation next to be described. It has the advantage over the other operations, however, of being nearly or entirely painless under local anesthesia produced by cocaine, and, therefore, when general anesthesia is contra-indicated, or is refused by the patient, this method is worthy of a trial.

Dilatation and incision, if skilfully and carefully performed, I believe to be a radical and unfailing cure for anal fissure. The bowels should be cleared out by a dose of castor oil and an injection, after which, under ether-anesthesia, the sphincter should be dilated in the manner previously described. This being accomplished and the ulcer properly exposed, a straight, blunt-pointed bistoury should be drawn firmly across its surface, making a cut about an inch in length and a third of an inch in depth. Instead of the blunt bistoury a sharp-pointed scalpel may be used. It should be entered at the margin of the anus, passed under the ulcer, and made to protrude above the ulcer, the overlying structures being then divided from without inwards.

The subsequent treatment consists in keeping the patient in the recumbent position and in the use of a little opium to confine the bowels. After three or four days a laxative may be given, from which time daily alvine movements should be secured. In seven or eight days the patient can begin to move about, but for at least two weeks he should avoid standing too long on the feet. No dressing is required; the parts should be bathed with a little warm water and carbolic acid soap, to remove offensive discharges,

The subcutaneous division of the sphincter, as recommended by some authorities, is not a satisfactory method, and is mentioned here solely for the purpose of condemnation. It is not only uncertain in its results, but it is also painful, and in more than one instance has been followed by abscesses.

1610 Arch Street.

CLINICAL MEMORANDUM.

PURPURA FULMINANS.

By J. L. NICHOLSON, M.D.,
of Camden, N. J., late resident physician in the Philadelphia Hospital.

The case here recorded occurred in the service of Dr. E. L. Vansant, at the Philadelphia Hospital, by whose permission this report is made.

Hannah H., a blind woman, forty-six years old, married, a native of Ireland, was admitted to the medical ward, April 14, 1892, at about 9.45 A.M., from the outwards, where she had lived for more than three years. She had been complaining of a feeling of weakness and sickness and constipation. For forty-eight hours the temperature ranged between 99° and 101°, and there were no decided symptoms. Magnesium sulphate was given to produce catharsis, and tonics were administered. Subsequently it was observed that the skin and extremities were cool; the pulse was imperceptible at the wrist, but 110 beats per minute could be counted in the carotid; the temperature was 99° in the mouth; the respirations were 36. The face was cyanosed; the neck and shoulders mottled; the lips and nails blue. The patient was perfectly conscious and stated that she felt weak and sick, but had no pain at all. External heat, stimulants by the mouth and hypodermatically were tried, with but slight and transient benefit. The cyanosis deepened, the weakness became more marked, and death took place at 11.25 A.M., the woman retaining consciousness long after the power of speech was gone and almost until death. The urine, withdrawn by catheter, presented no abnormality.

At the autopsy the woman appeared older than her recorded age. The body was fairly well nourished. Post-mortem lividity was of a peculiar crimson, resembling the glow of health, and not as diffuse as usual; the area of white spots was larger than usual. On the conjunctival surface of the edge of the right lower eyelid, near the internal canthus, was an ecchymotic spot as large as a pin-head. There was a dark hepatic eruption on the lips and alæ nasi, without ecchymotic spots.

On the labia majora there was a profuse herpetic eruption, with much ecchymosis under the epidermis. There was no discoloration of the mucous membrane of the vagina.

The abdominal cavity contained a quart of thick, bloody sero-purulent fluid, which was present in all of the various pouches.

The serous surfaces of the abdominal walls and intestines were markedly congested, with much ecchymosis showing through the peritoneum.

The liver was normal in size and showed small ecchymotic spots over the whole surface.

The gall-bladder contained five drams of yellowish bile.

The pancreas contained numerous small hemorrhages. The spleen weighed six ounces. The capsule was thickened and dark, and stripped off readily. Its inner surface was markedly hemorrhagic. There was a hemorrhagic infarct one inch in diameter in the lower border, and other smaller ones were distributed throughout the pulp.

The left kidney weighed two and three-quarter ounces; the right, four ounces. The capsules stripped off with difficulty; the cortices were diminished.

The substance of the kidney was anemic and presented numerous hemorrhagic spots throughout the cortex. The stellate veins were markedly congested and hemorrhagic, the spots on the surface dipping down three-eighths of an inch into the substance of the kidney. The right kidney was softer than the left, and presented a greater degree of hemorrhage in the pelvis, but possessing the same characteristics as the left.

A large hemorrhage was seen under the peritoneum of the esophageal extremity of the stomach, extending

posteriorly. About two inches from the pylorus were two papillomatous growths, with a slight depression between them, and seeming to originate in the mucous membrane. The walls of the stomach were otherwise smooth; some hemorrhagic spots were seen, particularly at the esophageal extremity.

The ovaries and fimbriated extremities of the tubes were hemorrhagic. The mucous membrane of the intestines contained many ecchymotic spots as large as pin-heads.

The pericardium was congested and ecchymotic, and contained two drams of bloody fluid.

The heart was flabby and contained fluid blood of a deep crimson color and chicken-fat clots in both ventricles. The blood had no peculiar odor.

The endocardium was deeply stained after washing, and contained many ecchymotic spots.

The right lung was adherent to the parietal pleura. A small amount of bloody fluid was present in each pleural cavity.

The pleuræ were congested and ecchymotic throughout.

The lungs were emphysematous, edematous, and dark.

The brain was not examined.

MEDICAL PROGRESS.

Hernial Protrusion of a Ureter in the Inguinal Canal.—REICHEL (*Archiv. für klin. Chirurgie*, B. xxiv, H. 2, p. 431) has reported the case of a boy, seven and a half years old, who for four and a half years had presented a tumor in the right inguinal region, extending into the scrotum, increased by cough and disappearing when the recumbent posture was assumed. For four years a truss had been worn; the tumor had, nevertheless, progressively increased in size. The mass was longitudinally oval and about as large as a hen's egg. It was readily though not entirely reduced by taxis, a small hemispherical mass, perhaps as large as a hazel-nut and of soft consistence, remaining unreduced. The finger readily passed through the inguinal canal into the abdominal cavity. The columns of the canal and the abdominal walls were relaxed; there was a moderate diastasis of the recti muscles. The overlying skin was normal. Both testicles were present in the scrotum; the right testicle appeared to be adherent to the hernial sac, with the reposition of which it moved slightly upward. Herniotomy being undertaken, it was found that the swelling was occasioned by a dilated and tortuous ureter, narrowed below by a stricture and communicating above with a hydronephrotic sac. The tube was divided, its lower portion being ligated while the upper was sutured in place, so that a ureteral fistula remained. It was afterward decided to remove the ureter and the corresponding kidney. This was accomplished through an incision extending from the tip of the eleventh rib to the upper angle of the primary incision. The patient recovered, a transient polyuria manifesting itself. The extirpated sac had a capacity of about two quarts. It was surrounded by a layer of renal tissue about three-quarters of an inch thick. Microscopically the renal structure presented little change. It is thought that at some previous period ulceration of the ureter had taken place as the result of the presence of a calculus, with cicatricial narrowing and the secondary development of the hydronephrosis.

Spontaneous Rupture of the Spleen.—BOWIE (*Lancet*, No. 3603, p. 659) has reported the case of a tall, strong, finely-built cavalry soldier, thirty years old, in Africa, who, having a morbid dread of African fever, determined to return to his home in Scotland. He had had several attacks of fever, and was again seized. The patient was exceedingly anxious about himself, and suffered much from fear. The spleen was slightly enlarged. Following a chill and before the hot stage set in, the man complained of severe pain, which he referred to his heart. The patient failed to sleep during the night. Retching was constant, a little greenish-yellow fluid being occasionally brought up. In addition to the pain referred to the heart, there was also pain in the loins and an inability to pass urine, notwithstanding a desire to do so. The bowels had been moved twice, the stools consisting of a little dark-colored fluid. The expression was anxious, the face dirty-gray, the features somewhat pinched, the lips livid and pale, the eyes clear and the pupils dilated. The patient complained of intense thirst. There was pain in both hypochondria. The pulse could be felt, but not counted; the heart-sounds were faint and indistinct. The abdomen was tense above the umbilicus, but below it was soft and could be manipulated without pain. Pressure in the hypochondria elicited pain, in the greater degree upon the left. By means of the catheter an ounce of dark-yellow, slightly turbid urine was withdrawn from the bladder; chemical tests disclosed the presence of albumin. Under stimulation the patient rallied slightly, but death finally set in. When the abdomen was opened, a large mass of liquid and clotted blood was brought to view. This had evidently been poured out from the spleen, the capsule of which was found to be ruptured, although the organ was scarcely larger than normal.

The Hematemesis of Anemic Young Women.—HANDFORD (*British Medical Journal*, No. 1655, p. 623) expresses the conviction that in numerous cases of hematemesis in anemic young women the hemorrhage takes place from ruptured capillaries or small venules, in the absence of actual ulceration. The influences that lead to rupture are fatty degeneration of the walls of the vessels, increase in the vascular tension and venous stasis from dilatation of the right side of the heart. Under such conditions it is the anemia, the constipation, and the feeble heart that require attention. The best guide in the dietetic treatment of cases of hematemesis is the state of irritability of the stomach, as indicated by the pain and vomiting. If both of these manifestations are absent a case of gastric ulcer may be treated safely and wisely on the same lines as a case of hematemesis apart from ulceration. If hyperacidity, as indicated by the occurrence of pain from half an hour to an hour after the taking of food, or as determined by chemical tests, is properly overcome by the administration of alkalies, a moderate amount of light food in a fine state of division may safely be given, even in case of gastric ulcer. If hematemesis is due to anemia, digitalis need not be given as long as the patient remains in bed, but if on arising the right heart is yet dilated and cardiac murmurs

are to be heard, the administration of digitalis is indicated.

A Peculiar Occupation-neurosis.—TRANJEN (*Berliner klin. Wochenschr.*, No. 33, p. 838) has reported the case of a military officer, twenty-seven years old, who presented a peculiar spasmodic action of the muscular apparatus of the left eye. Whenever the head was turned to the right and an attempt was made to turn the eyes still further to the right without moving the head, the superior oblique and the internal rectus of the left eye contracted in tonic spasm, creating an appearance as if the eye were fixed in the upper inner angle of the orbit. As long as the head maintained its position, the left eye failed to react to impulses of the will and in association with movements of the right eye. To overcome the spasm the patient had to turn the head toward the left to the middle line and alternately close and open the eye. The ocular apparatus was normal in all other respects. The patient presented no other evidence of disease. The manifestation was attributed to the repeated turning to the right of the head and eyes for a considerable period in the course of military exercises.

Aneurism of the Basilar Artery in a Boy Seven Years Old.—OPPE (*Münchener medicin. Abhandlung*) has reported the case of a boy, seven years old, who when three years old received a self-inflicted blow upon the head from a hammer. Considerable hemorrhage ensued, but the child apparently recovered perfectly. Four years later, pains appeared in the abdomen, at the nape of the neck, radiating in the length of the spine and in the throat. The breathing assumed the Cheyne-Stokes character; the action of the heart became irregular. There was some spasm of the extremities. Subsequently there appeared sopor, headache, and cardiac arrhythmia, death finally taking place. At the autopsy the basilar and the vertebral arteries were found the seat of aneurism. There were besides intermeningeal hemorrhage, internal hydrocephalus and pleural adhesions upon the left.—*Internationale klin. Rundschau*, 1892, No. 34, p. 1404.

A Case of Amenorrhea with Galactorrhea.—WEBER (*St. Petersburger medicin. Wochenschr.*, 1892, No. 33, p. 320) has reported the case of a woman, thirty-five years old, who had menstruated regularly from her thirteenth year, and who, though married for twelve years, had never been pregnant. For three months menstruation had been absent, without known cause, while the breasts had become enlarged. On account of the sense of pressure and tension, the breasts were expressed, from four to six ounces of milk being obtained daily from the right and twice as much from the left breast. The patient complained of no other symptom. The breasts were well developed. The uterus was small and atrophic, but otherwise normal and freely movable. The adnexa were normal. A small area of tenderness was present in the region of the third or fourth dorsal vertebra.

Successful Evacuation of an Abscess of the Frontal Lobe.—ZELLER (*Berliner klin. Wochenschr.*, 1892, No. 34, p. 860) has reported the case of a girl, thirteen years old, in whom a phlegmonous process developed in the right orbit after an attack of influenza. An incision gave vent to pus and afforded temporary relief. Soon, however, symptoms of cerebral irritation appeared, with severe vomiting and intense headache. Paralysis of cranial nerves was wanting, but injection of both optic discs and blurring of the left papilla appeared. The headache, which had been general, became localized to the right frontal region close to the middle line. The pain was intensified by percussion, but uninfluenced by puncture or pricking of the skin. The pulse was slowed. Finally, neuro-retinitis and choked disc with hemorrhage developed upon the left, while upon the right the vessels were injected and the papilla only blurred. At no time had there been fever or derangement of consciousness. By means of a trephine a disc of bone was removed from the right half of the frontal bone close to the middle line. The dura did not pulsate. A needle plunged into the anterior portion of the right frontal lobe disclosed the presence of white, creamy pus, of which about two ounces were evacuated. Pulsation at once set in and aided in the rhythmic expulsion of the contents of the abscess through the drainage-tube. The latter was progressively shortened and finally removed, the patient ultimately recovering perfectly.

Ovariotomy During Pregnancy.—From a study of 135 cases in which pregnancy was complicated by the existence of a tumor of the ovary, and in almost all of which ovariotomy was performed, DSIRNE (*Archiv f. Gynäkologie*, B. xlii, H. 3, p. 415) concludes that such a complication is always to be considered as a serious matter, demanding, with but rare exception, the extirpation of the tumor. The further advanced the pregnancy, the more dangerous the condition, both for mother and fetus. Puncture of an ovarian cystoma and the artificial interruption of pregnancy are to be considered only as emergency procedures. Ovariotomy yields the best results for the mother if performed in the second, third, or fourth month of pregnancy; for the fetus if performed in the third or fourth month. If for any reason early ovariotomy is not possible, the operation should be performed subsequently, as good results are to be expected.

A Large Osteo-sarcoma of the Humerus Successfully Removed.—MARSH (*Lancet*, No. 3603, p. 662) has reported the case of a laborer, forty-nine years old, who ten years previously had noticed a hard, bone-like swelling on the anterior aspect of the arm close to the shoulder-joint. In the course of two or three years the mass had reached the size of an orange, its growth subsequently remaining stationary for six or seven years. Then there was a progressive increase in size, until the arm measured twenty-five inches in circumference. The growth was considered to be a subperiosteal sarcoma, and its removal was decided upon. The subclavian artery was first tied in the third part of its course, and the extremity was removed at the shoulder. The patient bore the operation well. There were no complications.

Control of Hemorrhage from a Ruptured Middle Meningeal Artery.—STROKE (*Berliner klin. Wochenschr.*, 1892, No. 34, p. 860) has reported the case of a man upon whose head a brick fell from a height of four stories. Consciousness was lost and symptoms of compression

appeared: irregularity of respiration, convulsions, tension and slowing of the pulse and dilatation of the right pupil. A wound of the scalp behind the right parietal eminence and a fissure of the bone were found. A diagnosis of hemorrhage from the middle meningeal artery was made and trephining undertaken. A large extravasation of blood was found between the dura and the bone, with the continuance of hemorrhage. The opening in the skull was enlarged and the bleeding-point found. The ligatures would not hold, so that hemostatic forceps had to be applied. These were removed at the expiration of two days, and the hemorrhage did not recur. Immediately after the operation the right pupil was contracted. The patient recovered, some headache, however, persisting.

Infarct of the Heart.—At a meeting of the Société Médicale des Hôpitaux, Laveran (*La Médecine Moderne*, No. 29, 1892, p. 471) presented the heart of a man, fifty-four years old, who had died suddenly in consequence of the occurrence of an infarct of that organ. The man was seized during the night with a feeling of great anxiety and a tendency to collapse. Dyspnea was marked, but no lesion of the heart or lungs could be detected. The patient responded to treatment with caffeine and cupping, only to succumb to another paroxysm a short time later. At the post-mortem examination a limited area of the myocardium of the left ventricle was found hemorrhagic, together with the appearances of abscess-formation. The aorta was atheromatous. One of the coronary arteries was healthy; the other was occluded by a clot red throughout the greater part of its extent, but white at a point of division.

THERAPEUTIC NOTES.

For Hyperidrosis of the Feet.—

℞.—Naphthol. . . . . gr. xxij.
Glycerin . . . . . gr. xlviij.
Alcohol . . . . . ʒj.—M.

S. Apply night and morning; then dust of the following:

℞.—Pulv. naphthol. . . . gr. v.
Pulv. amyli . . . . ʒj.

Every morning.

One may also dust the stockings with:

℞.—Sodii salicylat. . . . gr. iv.
Potassii permanganat. . . gr. vj.
Pulv. talc. . . . . ℈iv.
Bismuthi subnitrat. . . ʒiss.—M.

KAPOSI, *La Semaine Méd.*, No. 46, 1892.

Subcutaneous Injections of Sodium Phosphate in the Treatment of Diseases of the Nervous System.—At a recent meeting of the Académie de Médecine, CROCQ (*Bulletin de l'Acad. de Méd.*, 1892, No. 37, p. 439), presented a paper of which the following are the conclusions: The subcutaneous injection of a solution of one-fiftieth of sodium phosphate in cherry-laurel water produces no reaction, local or general. At first daily injections of 15 minims may be given; subsequently 45 minims are injected on alternate days. In cases of disease of the nervous system the results produced are curative or palliative: curative in cases of functional disturbance, palliative in cases of organic disease.

For Acute Coryza —

℞.—Menthol. . . . . gr. iij.
Acid boric. pulv. . . . . ʒj.
Benzoini pulv. } . . āā ʒjss.—M.
Bismuthi subnitrat. }

Ft. pulv.

S.—A pinch to be snuffed five or six times daily.

L'Union Méd., No. 93.

For Fissured Nipples.—

℞.—Olei olivæ . . . . ʒss.
Ichthyol. . . . . ʒij.
Lanolini } āā . . . ʒijss.—M.
Glycerini }

S.—Apply topically.

OEHREN, *Journ. de Méd. de Paris.*

For Erysipelas.—

℞.—Powdered tannin } . . 1 part.
Powdered camphor }
Ether . . . . . 8 parts.—M.

S.—Apply with a brush every two hours.

Rev. gén. de Clin. et de Ther., No. 35.

For Asthma.—

℞.—Ammonii iodidi . . . . ʒij
Ammonii bromidi . . . ʒiij.
Tinct. lobeliæ . . . . fʒj.
Syrup. tolutan. . . . . fʒij.—M.

S. A teaspoonful every two or three hours.

BARTHOLOW.

For Cystitis.—

℞.—Acid. oxalic. . . . . gr. xv.
Syrup. aurantii . . . . ʒj.
Aquæ destillat. . . . . ʒiv.—M.

S.—A tablespoonful three times a day for two days.

RENAUD, *Journ. de Méd. de Paris*, 1892, No. 38.

Prophylactic Treatment of Angina Pectoris.—When angina pectoris occurs in persons with congested face, as a manifestation of aortitis or of arterio-sclerotic myocarditis, LIÉGOIS (*Gaz. hebd. des Soc. Méd. de Bordeaux*) prescribes night and morning during the last ten days of each month thirty drops of the following combination (sodium iodide being given during the previous twenty days):

℞.—Tinct. veratri viridis . . . fʒjss.
Tinct. aconiti . . . . fʒij.
Tinct. piscidiæ erythrinæ . . fʒjss.—M.

Gaz. Méd. de Nantes, 1892, No. 11.

For Asiatic Cholera.—

℞.—Cocainæ hydrochlorat. . . . gr. ½.
Acid. hydrochloric. } . . āā ♏v.
Tinct. opii }
Aquæ destil. . . . . fʒviss.
Syrup. simpl. . . . . ad fʒj.—M.

S.—A tablespoonful in ice-water, at first every hour and subsequently every second hour.

THE MEDICAL NEWS.

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OF MEDICAL SCIENCE.

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SATURDAY, OCTOBER 15, 1892.

THE TREATMENT OF CHOLERA.

CHOLERA is subsiding, and it is not likely that this country will this year experience a visitation of the dread scourge. It is most probable, however, that next spring and summer will witness a renewal, let us hope not a magnification, of the outbreak now about coming to an end. The subject is withal such an important one that we cannot refrain from presenting at this time a summary of a valuable contribution by CANTANI (*Berliner klin. Wochenschr.*, No. 37, 1892, p. 914), who adduces numerous facts confirmatory of the utility of the method of treating cholera that goes by his name, and advances the *rationale* of its mode of action. In cases seen early the mortality is practically *nil*, while in the cases that come under observation in the later stages of the disease the mortality is reduced to surprisingly and encouragingly low figures.

In some epidemics the greatest danger that threatens the patient seems to depend upon the loss of the watery elements of the blood, and a resulting deficiency of oxygen; while in other epidemics death seems to take place in many cases from the acute intoxication of the cholera-poison. In all epidemics, however, cases of both kinds are encountered. The indications for treatment thus are: to limit the proliferation of the cholera-bacilli in the bowel; to neutralize the poison that has been produced; to speedily eliminate from the blood the poison that has already been absorbed; and to overcome the thickening of the blood. An additional symptomatic indication is to supply artificial heat.

It has been abundantly demonstrated that the first two indications are admirably, and the others less completely, met by the repeated introduction high up into the bowel of from three to four pints of water or infusion of chamomile, containing from seventy-five grains to five drams of tannic acid, and from thirty to fifty drops of tincture of opium, and at times with from an ounce to an ounce and a half of gum arabic, at a temperature of from 100.4° to 104° (*enteroclysis*).

On practical and pathogenetic grounds cholera is divided into three stages: the initial stage, frequently called the stage of premonitory diarrhea; the attack proper, or the developed disease; and the stage of reaction, improperly called cholera-typhoid.

The first stage is characterized by the rapid and enormous development of the cholera-bacilli, with the generation and absorption of the poisonous products of their activity. The therapeutic indications of this condition are met by enteroclysis. It has been experimentally shown that tannic acid is actively antagonistic to the life of the cholera-bacillus, while it at the same time neutralizes the products developed by the activity of the organism. Besides, the injections impart an acid reaction to the otherwise alkaline contents of the intestine, aid in clearing the bowel mechanically and retard or prevent toxic absorption by virtue of their astringency. The earlier the treatment is instituted the better. In times of epidemic the treatment should be employed in even doubtful cases; no harm can result, and the greatest amount of good may be accomplished.

In the second stage of the disease, that of the developed attack, the indications are to overcome the thickening of the blood and to eliminate the toxic matters already absorbed into the circulation. These indications are best met by *hypodermatoclysis* or subcutaneous infusion; the introduction into the cellular tissues beneath the skin of two pints of sterilized water, containing a dram of sodium chloride and forty-five grains of sodium carbonate, at a temperature of from 100.4° to 104°. During this stage enteroclysis is to be kept up. The injections are best made in the ilio-costal

regions, in the groins, between the scapulæ or in the gluteal regions. The injections should never be made in the region of the neck. By introducing two needles the process is facilitated, while the distribution of the fluid is at the same time accelerated.

In the third or reactionary stage the indication is to eliminate the excrementitious and noxious and toxic matters that have accumulated in the tissues. This is admirably met by the continuance of hypodermatoclysis and of enteroclysis with tannic acid or with hydrochloric acid, from forty-five to seventy-five minims to the quart of warm water, or with sodium chloride, from two and a half to four drams to the quart of warm water.

The procedures here outlined constitute the basis of the treatment. Complications and special symptoms are to be treated as the indications may warrant. The method posseses the advantage of simplicity. No great skill is required in its application. In times of epidemics ordinary assistants or members of the patient's family can be readily instructed in carrying it out. Neither is the apparatus required complex, cumbersome, or expensive. Finally, the innocuousness of the treatment is a strong point in its favor.

ANTISEPTIC SYMPHYSIOTOMY.

THE success of the Cesarean section and amputation of the pregnant uterus has divested these procedures of novelty, and made them familiar surgical expedients. It seems now in order to revive the procedure of symphysiotomy, and to endeavor to find in this a way of avoiding the disadvantages of other procedures whose object it is to save the lives of mother and child in otherwise impossible labor.

The home of symphysiotomy has been in Italy, where MORISANI and others have continued to practise it; their work has been overshadowed by the brilliant success of PORRO and other abdominal surgeons. Among recent contributions to the literature of the subject are several papers from the French, among whom CHARPENTIER has given the matter careful attention. He is inclined to regard the operation as indicated in contracted pelves not sufficiently deformed to forbid the successful practice of version or the use of forceps. The true conjugate of these pelves should measure from three and a third to two and three-fourths inches. In many of these cases induced labor terminated by symphysiotomy, version, or the use of forceps, has given good results. Among other reports, that of SPINELLI is of interest; in twenty-four operations, all of the mothers recovered, and twenty-three of the children. Antiseptic precautions were carefully employed, the cutaneous incision was closed with catgut, and dressed with bichloride gauze. After delivery the patient had daily three vaginal douches of solution of mercuric chloride, at first one to two thousand, afterward one to four thousand. The pubic joint was usually firmly united in from four to six weeks. During that time the patient remained in bed, wearing a firm bandage about the pelvis. No case of permanent non-union is reported, the joint, as a rule, becoming strongly knit together.

The preference of abdominal surgeons who are successful in the Cesarean operation will remain in favor of that procedure in contrast with symphysiotomy. The greatest need in obstetric surgery, at present, is some method of procedure by which labor can be successfully terminated in contracted pelves without destroying the life of mother or child, a method available amid the surroundings of ordinary obstetric practice. In a well-appointed hospital, or with the coöperation of one or two intelligent colleagues, the Cesarean operation will always give brilliant results, but if symphysiotomy in connection with induced labor, version, and the use of forceps, shall prove a resource which the individual practitioner of obstetrics can employ unassisted by professional help, it certainly will find a field of usefulness. It seems applicable to just those cases in which it is often difficult to decide that an abdominal delivery is absolutely necessary. Further experience must decide the merits of the case, but we shall await with interest the accumulating experience of obstetricians upon this point.

THAT progress is sometimes made by leaps is well illustrated by the history of symphysiotomy. Less than four weeks ago DR. ROBERT P. HARRIS, of Philadelphia, read a paper before the American Gynecological Society, at Brooklyn, on "The Remarkable Results of Antiseptic Symphysiotomy" (see THE MEDICAL NEWS, October 8, 1892, p. 416), from which it appears that the operation has in recent times scarcely been performed outside of Italy. The meeting had, however, scarcely adjourned before the opportunity presented itself, and the operation was performed for the first time in America, with the death of the child in consequence of the protraction of labor. A few days later the oper-

ation was performed for the second time in America, with a happy outcome for both mother and child, and THE NEWS takes great pleasure in presenting in another column (see page 431) the report of this case. The news of the first two cases had scarcely spread before a third operation was performed, likewise with a successful result. Is evidence wanting that American surgery is progressive? Philadelphia can well feel proud that two of the cases were in the hands of Philadelphia operators and that both terminated favorably. Who shall say when the limits of antiseptic surgery shall have been reached.

"CELIOTOMY" VERSUS "LAPAROTOMY."

WHEN one says that he has performed a *laparotomy*, or sends a report stating that he has had ten successful *laparotomies*, he no doubt believes that he has properly applied an old compound Greek term consisting of *lapara*, the abdomen, and *tomæ*, to cut. The term is employed, as it is by hundreds in England, France, Italy, Germany, and many other countries, without question and without examination of a proper authority to find out whether the Greek anatomists called the abdomen a "lapara," or gave it some other title. If an English version of the New Testament be consulted, the word *belly* will be found in ten places. The Greek original will surely give its proper synonym: in all of the references the word is in every instance "*koilia*."

"Strange!" it will be said; "how is this?" On consulting a Greek Anatomy, and turning over the pages of RUFUS of Ephesus, who wrote in the second century A. D., this sentence will be found: "The *omphalos* (navel) is the hollow which occupies the middle of the *koilia*, where we cut the veins that nourish the fetus; the middle part of the hollow is the *akromphalon*" (top of the navel). Here RUFUS distinctly states that the belly was called *koilia*, not *lapara*.

"But there is a term *lapara* in Greek, surely?" Certainly. In old Greek, before there were anatomists, it meant a *hollow*, and they applied it to the *hollow of the waist*, or the flank. Old lexicographers and medical authors relate that the term *lapara* was applied to "the parts between the short ribs and the iliac bone." A laparotomy, then, is an incision of the flank, *e. g.*, a *laparo-colotomy*. The lapara was a hollow, and never a convexity.

"If *koilia* is the Greek word for belly, how is it that the whole world has gone so far astray in its nomenclature? Who started the misapplication of the term laparotomy?" We reply that it originated in 1811, in the thesis of a Wittenberg medical student of the name of FIEDLER, who had witnessed a true laparotomy performed upon a man of fifty that had a diseased colon, as he lay upon his right side, on October 17, 1810. Six years later FIEDLER again wrote, and coined such distortions as "laparo-gastrotomia," "laparo-raphia," and "laparo-hysterotomia." He appears to have designed to substitute for the word *gaster*, which really meant the belly, the word lapara, which a better knowledge would have taught him was not of the same meaning.

Koilia being the Greek word for abdomen, the synonym for the old meaning of gastrotomy will be "celiotomy" (*se-le-otomy*). We have a great many *celios* in our medical dictionaries, and one of them, "celio-paracentesis," or tapping the abdomen, is very near in its character to celiotomy, which indicates a larger wound. PROF. MAX SÄNGER, of Leipzig, has adopted the term *kœliotomie*, and MR. J. GREIG SMITH, in his work upon Abdominal Surgery, has adopted *cœliotomy* in his last edition. While we cordially welcome the new term—for the revival of which much credit is due to DR. R. P. HARRIS, of Philadelphia, we shall, in harmony with the orthography adopted by THE NEWS, spell it without the diphthong, thus: celiotomy.

Laparotomy in its misapplication appears to have a wonderfully tenacious hold upon the habit of use, even with men who have learned that it is improperly employed. They say it without thinking, just as a wagon-wheel slips into the old rut when the driver is not careful in holding the reins. We hope in time to overcome the error; but, as it has had eighty years of growth, we cannot expect to do so in a few months. We should, however, take a decided stand against the misapplication of terms in our science.

NEW ENTERPRISES.

A NOVEL example of financial enterprise on the part of newspaper and doctor is that of a pushing couple in a New England city. It seems that the daily paper had found the plan of free legal advice by "its lawyer" to work so well, that it has added a "physician's column, in which medical advice may be had for the asking."

"For this responsible position *The Mirror* has secured the services of one of Manchester's brightest

young physicians, a graduate of Harvard Medical College, one who belongs to the new school of physicians, whose faces are turned toward the morning, and who are not so bound down by tradition or prejudice that they will allow a patient to die rather than to administer medicines not countenanced by the particular school of which they happen to be a member. In other words, his highest desire is to save life, even if he has to smash some theories in doing it.

"*The Mirror* believes that its physician's column will prove a highly popular one. The identity of all inquirers will be preserved an absolute secret, and everybody who is sick or ailing or desires information can address "*The Mirror's* Doctor," care of *The Mirror*, and be sure of receiving a prompt, unequivocal, and lucid answer. *Send in your queries.*"

And why should it not be so? In Philadelphia papers there are now appearing full column advertisements of two charitable hospitals soliciting patients, and setting forth the advantages of each institution, the prominently displayed names of the visiting physicians of course not forgotten. To be sure, the hospitals are supported and the advertisements paid for by the gifts of kind people, who foolishly suppose that needy sufferers are seeking relief, instead of needy relief advertising for sufferers.

REVIEW.

THE ESSENTIALS OF HISTOLOGY, DESCRIPTIVE AND PRACTICAL. FOR THE USE OF STUDENTS. By E. A. SCHÄFER, F.R.S., Jodrell Professor of Physiology in University College, London; Editor of the Histological Portions of Quain's "Anatomy." Third Edition, Revised and Enlarged. Illustrated by more than 300 figures, many of which are new. 8vo, pp. vi., 302. Philadelphia: Lea Brothers & Co., 1892.

SYSTEMATIC in arrangement, judicious in selection of material, concise and lucid in description, this book eminently fulfils its purpose. It is beginning to be recognized that books for students constitute a class in themselves, and must be written with especial reference to the needs of their readers. Thus there is growing up a student's library, composed of books written by teachers of experience and comprehensive knowledge, treating of essentials with fulness and clearness, but omitting a multiplicity of details that could only serve to confuse. Such books are not "examination aids," but study-helps. The book before us has reached a third edition, a fact that proves its usefulness to teachers and students both. It is a book for the laboratory, to be referred to while studying specimens under the microscope. Especially to be commended are the sections on the nervous apparatus. To the practitioner whose student days on the benches were passed before modern methods had been introduced, the book will prove useful in refreshing his knowledge and introducing him to some of the most recent advances in histologic investigations. The illustrations are of exceptional merit.

SOCIETY PROCEEDINGS.

AMERICAN GYNECOLOGICAL SOCIETY.

Seventeenth Annual Meeting, held in Brooklyn, September 20th, 21st and 22d.

(Continued from page 418.)

SECOND DAY—SEPTEMBER 21ST.

DR. CHARLES P. NOBLE, of Philadelphia, read a paper on "Certain Aspects of Gonorrhea in Women." He related the case of a woman, free from genital catarrh, who contracted gonorrhea of the cervix and vulvo-vaginal gland, with little, if any, involvement of the vagina, the disease extending to the tubes and causing a large collection of pus within the peritoneum.

Dr. Noble emphasized the chronicity of gonorrhea. He stated that he had never seen a case of gonorrheal salpingitis that terminated in a perfectly natural cure with a functionally active tube. In connection with the likelihood of the second tube and ovary becoming infected if one were removed for disease, he advised extirpation of the sound appendages also in elderly women, allowing younger women to decide for themselves whether they would submit to the dangers of a second operation.

DR. EDWARD P. DAVIS, of Philadelphia, read a paper entitled "Retro-peritoneal Tuberculosis Simulating Hernia." He reported the case of a woman who complained of pain in the right inguinal region after having lifted a heavy weight. She was kept in bed eleven weeks, during four of which she had metrorrhagia. On recovering, she resumed her work as a domestic, but some time afterward she was again seized with severe pain in the right ovarian region. On examination the abdomen was found moderately distended, while there was a swelling in the right inguinal region resembling a hernia; the temperature ranged from 100° to 102.5°; the pulse was rather rapid. The family history was good, except that the father had died of tuberculosis. It was believed that the woman had a hernia or tubal disease. The tumor was cut down upon, the resemblance to a hernia persisting during the section of the sac. It was, however, utterly impossible to reduce the tumor; as the patient was about to pass into collapse, the abdomen was hastily opened in the median line; while the finger was engaged in an effort to return the mass it penetrated an abscess containing several ounces of pus. The pelvic peritoneum was thickened and engorged, and in the hypogastric region was a commencing peritonitis. It became evident that the disease had its origin behind the peritoneum, and must have been tuberculous, although tubercle-bacilli were not found in the pus. The patient made a good recovery and has shown no other signs of tuberculosis.

DR. EGBERT H. GRANDIN, of New York, read a paper entitled "Accouchement Forcé in Certain Obstetrical Complications, with Remarks on the Treatment of Post-partum Hemorrhage." He related the case of a multipara, eight months gravid, who had hemorrhage,

for the control of which a tampon had been introduced into the vagina. The condition growing alarming, the tampon was withdrawn and the whole hand introduced. The cervix was found one-eighth dilated, the margin of the membranes presenting. The margin of the placenta was separated, the finger introduced, thirty minutes being required for dilatation; then bi-polar version was performed, the fetus extracted, the placenta removed, and the patient thus spared all further loss of blood; the uterus was packed with gauze. Recovery was satisfactory. A similar mode of procedure was resorted to in a case of uremia, threatened or actual, and of disproportion between the size of the pelvis and the fetal head, with satisfactory results.

DR. W. H. PARISH, of Philadelphia, stated that he understood by *accouchement forcé*, rapid delivery through an undilated and undilatable os, and that while he, with others, favored rapid delivery under certain conditions, he thought one should first secure sufficient dilatation, as otherwise the procedure would be attended with immense risks to the mother. He had been called to one case in which the uterus had been ruptured by version and *accouchement forcé* for placenta previa with hemorrhage.

DR. WILLIS FORD, of Utica, related three cases of uremic convulsions, in which he had brought on dilatation, and, instead of turning, applied the high forceps, delivering living children and saving the mothers, although in one or more severe laceration occurred.

DR. EDWARD P. DAVIS, of Philadelphia, stated that to bring on dilatation of the uterus before the natural time, a good deal of experience is required in order to avoid serious accident. In treating cases of placenta previa, in which dilatation and emptying of the uterus are desired, the use of a tampon of iodoform-gauze, alternated with hot douches, had, in his hands, proved a successful method. In practice, the insertion of gauze into the uterus, after emptying the organ, had also proved to be an efficient and unobjectionable procedure.

DR. JOHN BYRNE delivered the "President's Address." He deprecated the too frequent resort of surgeons, through the beneficent but seductive agency of antiseptics, to dangerous and mutilating operations on the sexual organs of women, and deplored the specular examination of young and unmarried women without due cause.

Dr. Byrne took for his theme the surgical treatment of carcinoma of the uterus, and the prevailing disposition on the part of many to disregard all means of relief save one—a dangerous, mutilating, and comparatively fruitless proceeding. He emphasized the fact that although experience and skill are essential in hysterectomy, they are not the only factors to be considered in accounting for results. He called attention to the great number of hysterectomies that have been performed, many with such fatal results, and stated that it seemed as if one might imagine nowadays that any proceeding short of complete pelvic evisceration had long since ceased to be worthy of consideration.

He expressed unqualified disapproval of the doctrine that justified total removal of the uterus whenever carcinoma is discovered and proved to exist. Almost equally shocking is the practice of removing a large portion of the pelvic basin in order to attack the uterus posteriorly.

As amputation of the cervix in cases of carcinoma of the uterus, whether high or low, is worse than useless without cauterization, and as it is not free from danger, there are only two surgical measures to choose between to-day, namely: 1. High amputation, or exsection by the galvano-cautery, not only of all diseased parts, but as much more and beyond the supposed danger-line as can be safely taken away, followed by thorough dry-roasting of all exposed surfaces; or, 2. Vaginal hysterectomy, with its more attractive surgical glamor and ghastly record of lives shortened and even sacrificed on the altar of what has been miscalled "progressive gynecology."

In 400 cases of carcinoma of the uterus treated by means of the galvano-cautery no deaths resulted from the operation. In 40 of 63 cases of carcinoma of the *portio vaginalis*, 23 having stayed away, there was exemption from recurrence of from two to twenty-two years, being an average to each of over nine years. Of 81 cases in which the entire cervix was involved, 31 were lost sight of, 10 relapsed within two years, 5 had no recurrence for two years, 11 none for three years, 6 none for four years, 8 none for five years, 6 none for seven years, 2 none for eleven years, 1 none for thirteen, and 1 none for seventeen. This method of treatment for uterine carcinoma possesses two most important advantages: 1. Absolute freedom from danger, immediate or remote. 2. A longer respite from recurrence of the disease than has been afforded by hysterectomy.

The phenomena following operations for carcinoma of the uterus by means of the galvano-cautery are: 1. Absence of fever and of almost all pain, pelvic and peritoneal. 2. Almost universal immunity of the scar-tissue after cauterization from a second attack in event of recurrence of the disease; and 3. In the case of recurrence, the long respite obtained from reappearance of the disease in more remote parts, even in the more unpromising cases of circum-uterine infiltration.

DR. H. J. BOLDT, of New York, read a paper on "Vaginal Hysterectomy for Carcinoma of the Uterus." He expressed a preference for ligatures, especially of catgut, when it was possible to use them, but stated that in certain cases he had found it desirable, if not absolutely necessary, to use clamps, and so far as his own statistics showed, the one method appeared to be as safe as the other.

He emphasized the necessity for keeping well outside of the diseased tissue. It is not advisable to operate if one cannot remove all infiltrated tissue. Under such circumstances the patients do not live as long as if the operation had not been performed; while their suffering is greater, there remains some discharge and some hemorrhage which might be profuse; in short, the patients are worse than if total extirpation had not been done. It should not be forgotten, however, that an apparent malignant infiltration, causing immobility of the uterus, might in reality be due to a previous simple inflammatory exudate. In that event there should be no hesitancy to remove the entire uterus, although it might be immobile.

In some cases there is found a nidus of disease in the cervix separated from disease in the body of the organ by an isthmus of healthy tissue. As it is not possible to know before the removal of the uterus that the body of

the organ is not involved, as well as the vaginal portion, hysterectomy is to be recommended in all cases in which the extent of the disease does not contra-indicate the operation.

DR. JOSEPH JANVRIN, of New York, expressed the opinion that vaginal hysterectomy is justifiable in cases in which the cervix, the vaginal portion, or endometrium is involved, and in some cases in which the vagina alone is implicated he conscientiously believed that the disease was not of a malignant nature, and in them he was justified in removing the uterus. He had had three such cases in the past eight years, there having been no recurrence in any of them. In performing vaginal hysterectomy for uterine carcinoma he thought the same principles should govern as in carcinoma in other parts of the body.

DR. H. C. COE, of New York, stated that he would not perform complete hysterectomy in cases of commencing epithelioma of the cervix. He admitted that he had seen cases in which there was carcinoma in the body of the uterus that was entirely independent of carcinoma of the cervix, the former not being recognizable before operation. Small fibroids are also likely to undergo malignant change.

DR. W. GILL WYLIE, of New York, stated that he would be just as likely to remove a part of the breast for carcinoma as to remove a part of the uterus. Prior to the operation he renders the uterus perfectly aseptic by curetting and the douche.

DR. W. H. BAKER, of Boston, suggested that those who did hysterectomy for carcinoma of the uterus might find it an advantage to thoroughly sear the parts with the galvano-cautery, after as complete extirpation as possible.

DR. J. REEVES JACKSON, of Chicago, denied the propriety of removing the entire uterus for carcinoma.

DR. B. F. BAER, of Philadelphia, read a paper on "Supra-vaginal Hysterectomy Without Ligature of the Cervix, in Operations for Uterine Fibro-myomata," in which he described a new method of treatment of the cervix in supra-vaginal hysterectomy. He had thus operated in nine consecutive cases, with recovery in all. A tenth case resulted fatally, but not as a result of the method of operating.

The patient is preferably placed in the Trendelenburg posture. After the abdomen is opened a silk ligature is thrown around the broad ligament on one side, after which the tumor is to some extent separated from the uterus. The same step is taken on the opposite side. The knife is then run lightly around the uterus an inch or two above the peritoneal reflexion of the bladder in front and a little lower behind; the peritoneum is stripped down with the handle of the scapel to make flaps. The next step is to ligate the uterine arteries close to the cervix. The organ is then amputated at the cervix, leaving none of the supra-vaginal portion. When the cervix is dropped it recedes deeply into the pelvis and is covered over by the peritoneal flaps, which usually are not sutured together. Not a single ligature or suture is put into the cervix, as thereby all occasion for sloughing, which sometimes follows from the constriction of a ligature or suture, is avoided. In the cases thus treated there had been no hemorrhage, no sloughing, practically no rise in temperature, and no untoward result whatever; the cervical canal was not cauterized. In the tenth case death took place thirty-six hours after the operation, as a result of the action of the anesthetic, aggravated by a large goiter.

DR. WILLIAM M. POLK, of New York, read a paper on "Supra-vaginal Hysterectomy for Uterine Fibroids; Report of Fourteen Cases." He reported that he had performed total abdominal hysterectomy 21 times—17 for fibroma, 4 for procidentia. Of the former 2 died. As an operation, total extirpation of the uterus for fibroid disease presents no special conditions except in the matter of controlling hemorrhage. The vessels on the upper portion as well as the round ligament and the broad ligament of the uterus are secured in the same manner as are the vessels in other varieties of hysterectomy. The point of digression is reached at the cervix, in dealing with the vessels supplying the lower segment of the uterus. The arteries that are likely to give trouble, because of their anastomosis with the vessels above, belong to the vagina and to the posterior wall of the bladder. A ligature placed ouside the ureter would control all of them. A ligature placed around the vessel just ouside the utero-vaginal junction will certainly control all vessels inside the anterior vaginal. This would leave bleeding-points upon the stump dependent upon the return currents derived from the anterior and lateral vaginal. These leak so slowly that ample time is given to seize and ligate them.

The usual incision is made in the linea alba, extending well down to the symphysis. The ovarian vessels are then tied in position, the first ligation, if practicable, being made outside the ovary. A ligature or forceps is then applied about the same vessel well up against the uterus, to provide against the return flow. The upper parts of the broad ligament and round ligament are next tied; then the ovarian vessels are divided between the ligatures, and the uterus is cut free from the round ligament and broad ligament well down to the base, and lifted from its bed. If the tumor is large and unwieldy, a rubber ligature is thrown around it as low down as possible and the structure above cut away; if it is of reasonable dimensions the uterine vessel on each side is at once ligated and the uterus is then cut away from the vagina. Four long catgut sutures are then introduced, one passing through the anterior vaginal wall, thence to the edge of the peritoneum deflected from the bladder; another through the posterior wall and the cut edge of the peritoneum dissected from the back surface; one upon each side, placed so as just to bring the peritoneum together at the sides of the stump of the vagina, passing thence through the lateral vaginal wall. These sutures are each tied in position and then tied together in a knot, which is thrust into the vagina, seized with a forceps, and drawn well downward, thus turning in the peritoneal surfaces. The vagina is then washed out and packed with gauze, the packing in the majority of cases resting against the inverted peritoneum, but in some cases in which there has been much handling of tissues the gauze may be introduced between the folds. In the latter class of cases a glass drainage-tube is introduced to the bottom of Douglas's cul-de-sac from above. The abdomen is then closed; the drainage-tube is removed in from twelve to twenty-four hours; the gauze on the third day.

In procidentia the stump is not dropped, but is attached to the abdominal walls, to avoid the possibility of prolapse.

THIRD DAY—SEPTEMBER 22D.

DR. H. T. HANKS, of New York, read a paper entitled "Can we Prevent Secondary Hemorrhage after Ovariotomy?" He reported two cases, in one of which the patient died, and in the other life was saved by reopening the abdomen and securing the point of hemorrhage; it was necessary also to resort to transfusion. He related that three years earlier he had seen two cases in the practice of a friend, in one of which he himself reopened the abdomen, transfixed the pedicle, employed a saline solution and saved the patient's life.

If the tumor is large, after ligating the large artery the broad pedicle should be quilted in and out, so that the silk could not slip. In smaller pedicles the artery should, if possible, be discovered before transfixion; the transfixing needle is passed to one side of the vessel, which is then tied thoroughly. In the case of small pedicles it is necessary to be sure not to split the artery, or pedicle, by too much traction in tightening the ligature. In removal of the diseased tubes and ovaries, if diseased and imbedded in old adhesions, there will be only small arteries to deal with, and almost any well-tied ligature will hold. No special ligature was advocated; either silk or catgut will do, but it should be quite aseptic. If catgut is employed the first part of the knot should be made with one turn, the second part with two turns.

DR. A. P. DUDLEY, of New York, stated that he had known secondary hemorrhage to follow ovariotomy, which he thought was principally due to traction upon the ligature of one side while operating upon the tumor upon the opposite side. He always broke up the adhesions on both sides and freed the appendages and uterus before applying the ligature on either side.

DR. W. H. WATHEN, of Louisville, stated that he had lost two cases in his early experience by secondary hemorrhage after ovariotomy. In one the ligature had simply cut through the tissues, and in the other the vessels had ruptured. It is not of much importance what kind of suture is used if it is strong enough; nor how it is tied, if it is tied well.

DR. H. P. C. WILSON, of Baltimore, stated that he always touched the pedicle thoroughly with Monsel's solution of iron in order to mummify the stump and prevent slipping of the ligature.

DR. J. M. BALDY, of Philadelphia, stated that he always instructed the assistant who was holding the pedicle to slacken up just before the knot was tied. Before closing the abdomen he generally went back to the first side to see that everything was in proper order.

DR. EDWARD REYNOLDS, of Boston, read a paper on "The Value of the Forceps in Complicated High Arrest of the Breech, with a Report of Two Cases."

The first patient had been in labor thirty-one hours, with no progress during the last four hours. Under ether the os was manually dilated; the lower segment of the uterus was found closely applied to the child and somewhat thinned. It was thought that the passage of the hand above the constricting ring would be extremely difficult and dangerous, and the forceps was applied to the breech. One blade of the Vienna forceps was applied over the sacrum, the other over the posterior surface of the anterior thigh; axis-traction rods were added, and by two or three strong tractions the breech was brought into the pelvis. The forceps was then removed, but it being impossible to deliver the breech by traction with the finger, the instrument was reapplied without rods, when, with moderate traction, the breech was brought to the vulva and delivered by the finger. Without the forceps delivery could have been effected only by withdrawing a leg, which would have endangered rupture of the uterus. The child died after four days, of convulsions, from hemorrhage at the base of the brain, but there had been no injury to the body internally or externally as a result of the application of the forceps.

The second case was similar; the child lived.

The special point made by the author was that, had the hand been introduced and the leg brought down, rupture of the constricting thin section of the uterus would have taken place; also, that if the forceps had been applied higher on the body of the child some of the viscera would probably have been injured. The fingers should be repeatedly inserted to make assurance that the blades of the forceps grasp at the proper place.

DR. CHAUNCEY D. PALMER, of Cincinnati, read a paper entitled "What is the Best Management of Occipito-posterior Positions of the Vertex?" He defined a true posterior position as one in which the occiput was not only directed toward the sacro-iliac synchondrosis, but in which it impinged against the posterior inclined pelvic plane. Posterior position means slow engagement, slow descent, and possible non-rotation, or posterior rotation. Flexion of the head after dilatation of the cervix is not complete or persistent. No special difficulty occurs until the pelvic floor is reached. Labor is longer, and much greater force is required, because the distance which the occiput has to travel is greatly increased, and the shoulders and the whole of the fetus become impacted outside the uterus. Thus, while more *vis a tergo* is needed, less is afforded.

In diagnosis, early palpation of the abdomen and auscultation is as important as vaginal touch, and should also be utilized during labor. The treatment of most cases is simple, and will depend largely upon the particular stage of parturition at which the condition is recognized. If the case is seen early enough, the child should be rotated into the anterior position. If this is not successful, podalic version should be performed. The latter operation is especially indicated if the head is large and broad, or the pelvis contracted. The knee-elbow posture favors, by gravitation, the rotation of the fetus as a whole into the anterior position. In the second stage, the lateral decubitus corresponding with the direction of the posterior position favors rotation. If, however, the head should reach the perineum without rotating, the aim of the operator should be to promote and increase flexion by pushing the frontal bone in an upward direction, with two fingers during pains, generally pressing toward the mother's left; or the whole hand may be used. The forceps may still be necessary, rotation being left entirely to Nature. While the application of the forceps, made in a careless manner or at too early a time, may prevent anterior rotation, causing extension, the use of the instrument at this time is urgently called for. If the mother is in an exhausted condition and the child is dead, craniotomy offers the best chances for the mother. With the child alive, most obstetricians would very properly prefer the forceps.

DR. A. PALMER DUDLEY, of New York, read a paper on "Umbilical Hernia in the Female, with a Report of Five Cases." He described the method of treatment he employed, and claimed for it certain advantages over other methods. While a firm advocate of catgut in most operations, he prefers silver wire for retaining in coaptation the divided abdominal walls. The wire is used to support the strain, while the catgut may be employed as a continuous suture to make more accurate approximation. The silver-wire sutures are passed through a small rubber canula, which obviates the necessity for twisting them, and also serves for drainage. In all his cases he had succeeded in securing union with an almost entire absence of suppuration, and with no rise in temperature.

The fourth case was one of enormous ventral hernia, the cellular tissue being greatly atrophied; the vermicular action of the intestines was visible through the skin, and it seemed hazardous to operate. An incision nine inches long was made; the omentum was adherent along the entire line of the incision, and a large portion of it had to be removed. After cutting out an elliptic piece of the walls, they were drawn together as closely as possible and quilted by a continuous catgut suture. They were so much atrophied that it was almost impossible to get sound muscular tissue to cover in the hernia. In addition to the two rows of catgut, seven wire sutures were employed. The patient made a good recovery without accident, except for slight suppuration about two wire sutures.

The cases reported show that it is useless to treat umbilical hernia by mechanical appliances; to open the peritoneal sac is not dangerous, and it is preferable to returning the sack without knowing how many adhesions there might be between it and the intestine; this method of treating the scar does away with the necessity of leaving buried sutures; hernia will be less likely to follow laparotomy if operators will be less careless in closing the abdominal incision.

DR. H. J. GARRIGUES, of New York, read a paper entitled "Stomatitis due to the Irritation of Epithelial Pearls in the Mouths of New-born Children." [See THE MEDICAL NEWS of October 1, 1892, page 373.]

The following officers were elected for the ensuing year:

President—Dr. Theophilus Parvin, of Philadelphia.

Vice-Presidents—Dr. W. H. Parish, of Philadelphia; and Dr. W. H. Baker, of Boston.

Secretary—Dr. Henry C. Coe, of New York.

Treasurer—Dr. Matthew D. Mann, of Buffalo.

Members of Council—Dr. B. B. Brown, of Baltimore; Dr. A. P. Dudley, of New York; and Dr. Willis Ford, of Utica.

The Society adjourned to meet in Philadelphia on the third Tuesday in May, 1893.

NEWS ITEMS.

The New Clinic and Lecture Hall of the Philadelphia Hospital was formally dedicated on Saturday last, with appropriate ceremonies. Addresses were made by Mayor Stuart, Col. William H. Lambert, Dr. R. G. Curtin, Mr. Charles Lawrence, and others.

The Chicago Clinical Review is the name of a new monthly, the first number of which bears the date of October. Dr. George Henry Cleveland and Dr. Albert I. Bouffleur are the editors, and there is a long list of collaborators, containing the names of well-known clinicians and writers.

The American Orthopedic Association.—The following officers were elected at the recent meeting to serve for the ensuing year: President, Dr. A. J. Steele, St. Louis; Vice-Presidents, Drs. Samuel Ketch, New York, and Arthur Gillette, St. Paul; Treasurer, Dr. A. B. Judson, New York; Secretary, Dr. John Ridlon, Chicago.

"Hon. C. Pancoast Gaily, M.D.," is travelling through Ohio, inserting flaming advertisements in the newspapers and using the names of certain Philadelphia physicians in commendation of himself. He gives with quotation marks, as if it were a personal letter from Professor J. M. Da Costa, a quotation from the introductory chapter of Da Costa's *Diagnosis*, and misuses a personal letter of Professor John B. Roberts to physicians as a part of his public medical advertisement. The fact illustrates the need of the greatest caution, or even absolute refusal, as regards commendatory letters by physicians.

The World's Congress Auxiliary has been organized in connection with the World's Columbian Exposition, and has been recognized and approved by the Government of the United States. A local committee of arrangements has been appointed by the World's Congress Auxiliary, and an advisory council will be selected from those eminent in this department in different parts of the world, to arrange a World's Congress of Medical Climatology, to be held at Chicago during the Exposition season of 1893. The design is to hold this Congress at a time convenient to those who will attend the congresses of the other divisions of the Department of Medicine which are assigned to open May 29, 1893. This early date was chosen to accommodate those who will desire to attend the Medical Congress to be held in Rome, Italy.

The Eleventh International Congress will meet in Rome, Italy, from September 24 to October 1, 1893. By an official letter dated August 22, 1892, and signed by Prof. Guido Baccelli, President, and Prof. E. Maragliano, Secretary-general, Dr. A. Jacobi, of New York, has been directed to form an American Sub-committee. Its membership is not yet complete, but on it are already found beside that of the Chairman, the names of Drs. William Osler, of Baltimore; S. C. Busey, of Washington; N. S. Davis, of Chicago; Charles A. L. Reed, of Cincinnati; William Pepper, of Philadelphia; F. Peyre Porcher, of Charleston; James Stewart, of Montreal; and Alexander J. C. Skene, of Brooklyn, N. Y. In the interest of facilitating the trip to Italy and reducing the expense, arrangements will be made with the steamship companies. According to a communication from the Central Committee, contained in a letter of the Secretary-general, dated September 14th, the North German Lloyd proposes to reduce the fare to Genoa by 20 per cent. and that of the return trip by 10 per cent. It is expected that still more favorable terms will be secured.